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A

COURSE OF LECTURES

ON

SYPHILIS.

DELIVERED AT THE SCHOOL OF MEDICINE, GROSVENOR-PLACE, ST. GEORGE'S HOSPITAL, SESSION 1841-42.

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LECTURE VIII.

The arteries, veins, lymphatics, and nerves of the ovarium. The uterus; its functions. The fœtus nourished during its uterine life by the blood of the mother. The fœtus contaminated by the poisoned blood of the parent. The os uteri liable to the contact of the syphilitic and gonorrhœal poisons. The fœtus at the period of birth liable to be inoculated with primary syphilis or with gonorrhœa; after birth the poison may be imbibed from the breast of the mother or nurse. The anatomy of the uterus. Importance of the arrangement of the peritoneum with respect to operations performed upon the neck of the uterus. The closure of the neck of the uterus probably a cause of sterility in some instances. Open mouths of blood-vessels on the inner surface of the uterus. Changes which the ovum undergoes during its transit through the Fallopian tube; its reception in the uterus. The membrana decidua. The earliest human ovum observed in the uterus. Two interesting dissections from a manuscript of the late James Wilson, Esq.

GENTLEMEN,—In my last lecture I described the germ-preparing organ of the female, the ovarium, and its excretory duct, the Fallopian tube; the anatomy of the ovum, and of the corpus luteum, was also considered. The supply of blood-vessels and nerves to the ovarium is very similar to that of the testicle. An artery, usually termed spermatic, although in the female, descends from the abdominal aorta, just below the origin of the renal, to reach the ovarium. This artery lies at first upon the psoas muscle, behind the peritoneum, and on gaining the pelvic cavity, passes between the two folds of the broad ligament of the uterus, to terminate in the ovary. Branches from the uterine artery also reach this organ, and form free anastomoses with those of the spermatic artery. The veins and lymphatics of the ovary proceed upwards upon the spermatic arteries. The former, generally single on either side, empty themselves, the left into the renal vein, the right into the cava abdominalis; the latter, usually three or four in number, on each side, terminate in the lumbar-lymphatic glands. The veins and lymphatics of the ovaries communicate freely with those of the uterus. The nerves of this organ are derived principally from the spermatic plexus of the sympathetic: they form frequent unions with the nerves of the uterus. The Fallopian tube gains its supply of vessel and nerve from the same sources as the ovarium.

The uterus is the next organ of the female to which I must direct your attention. The uterus forms part of the channel through which the seminal fluid must pass to reach the ovary. It is to be the receptacle of the ovum after its impregnation, and is the organ in which the ovum in mammalia is to take up its abode until the microscopic germ is so far perfected as to be fitted for extra-uterine life, until it has increased in bulk in the human subject, to weigh six or eight pounds, and to measure in length from eighteen to twenty-two inches, until its breathing and digestive organs are sufficiently developed to enable it to prepare and assimilate for itself the nutritive matters with which it is supplied by the air of the atmosphere, and by the mammary secretion of the parent. This period of utero-gestation, as it is called, varies in different animals. Nine months is the term in the human species. During the greater part of this period the vessels of the uterus convey the nourishment to the fœtus, which is admitted to be derived from the circulating blood of the mother; and at the termination

of uterine life again, it is the muscular fibre of this organ by which the new being is to be expelled from its former abode, where it was surrounded by the fluid medium of the liquor amnii, to enter upon a new state of existence, that of a breathing animal in the atmospheric air. The uterus, then, has most important functions to perform, and you are prepared, I trust, to look with some degree of interest to the arrangement of its blood-vessels, to the position of its orifices, to its muscular wall, to its intimate tissue, especially in reference to its extraordinary powers of growth and decrease during the period of, and subsequent to, pregnancy: at one time equalling the size of a pear only, and concealed in the pelvis; at another filling the abdominal cavity, and reaching as high as the ensiform cartilage.

With respect to the special subject of these lectures, I ought also to observe, that the lower orifice of the uterus (os uteri) is so situated as to be liable to the contact of both the syphilitic and gonorrhœal poisons, and, consequently, it occasionally becomes the seat of those affections. Nor should we here lose sight of the fact, with respect to the fœtus in utero, that it has a double risk of becoming contaminated by the venereal virus. In secondary syphilis, through the poisoned blood of the mother, from which it gains its nutriment during the greater part of its uterine life, and also in its passage from that organ, by direct contact with the venereal matter, when the primary ulcers are present. The offspring has but little chance then of escape, and as it has to depend even after birth upon its parent for nourishment, a third opportunity occurs by which the poison may be imbibed from the breast of the mother; and we unfortunately meet too frequently with painful instances of this nature. At the present moment I have under my care a married lady, severely afflicted with secondary syphilis, and who is now far advanced in pregnancy. In a future lecture I shall inform you of the result of this very interesting but distressing case.

But to begin with the anatomy of the uterus. This organ, in its unimpregnated state, is about the size and form of a pear, flattened somewhat anteriorly, and also, but to a less degree, posteriorly. Its measurement in length is about three inches; in width, at the widest part, about two inches; and in thickness, one inch. The upper part of the uterus is called its fundus; the lower constricted part is termed the neck, and the intermediate portion constitutes the body of the organ. The mouth of the uterus, or os uteri, projects into the cavity of the vagina. The uterus is situated in the cavity of the pelvis, to which it is attached laterally, by its broad ligaments. These ligaments are formed by the peritoneum, which, having covered its anterior and posterior surfaces and fundus, is prolonged from its sides laterally to the pelvis, so that the uterus may be said to be placed centrally, between the two folds of which this ligament is composed. The uterus is also connected to the fore part of the abdominal wall by what are termed its round ligaments. These are two fibrous cords, which may be seen on looking upon the anterior folds of the broad ligaments; they extend on either side, from the upper and lateral parts of the body of the uterus to the internal abdominal rings, through which they pass, as well as through the inguinal canal and external abdominal rings, to be lost in the substance of the labia majora of the external genitals. Accompanying the round ligaments from the uterus are some filaments of sympathetic nerve, and also some lymphatic vessels, which terminate in the inguinal glands, and joining it in the inguinal canal will be found the external spermatic nerve and that branch of the epigastric artery, which in the male is called cremasteric. The broad ligaments form a sort of reserve of peritoneum, to cover the uterus in its enlarged and impregnated state; while the round ligaments serve to direct the organ forwards under the same circumstances, and to maintain it in contact with the anterior wall of the abdomen, when it rises high in that cavity.

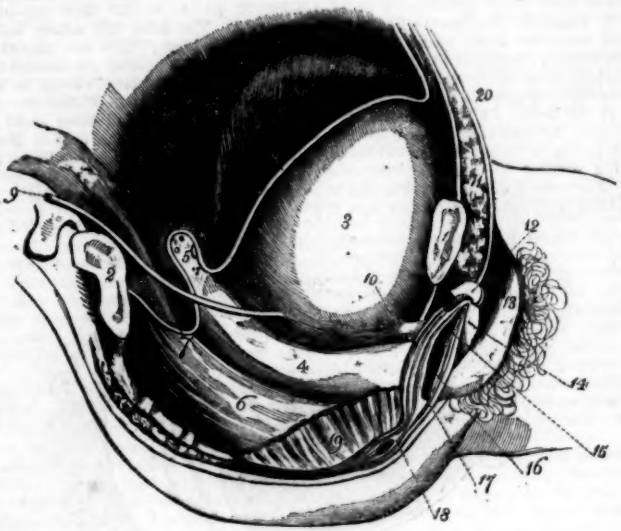
The uterus (No. 5, Fig. 21,) may be said, when unimpregnated, to be located between the bladder and rectum, to both of which organs it is connected by the same investing serous membrane, the peritoneum; it will also be noticed to form a considerable angle with the vagina. In the dissection of the side view of the female pelvis before us, from which I have had this diagram taken (vide Fig. 21,) the reflections of the peritoneum, from the rectum to the uterus, and from the uterus to the bladder, may be well seen (Nos. 7, 8). The broad ligament of the uterus has been cut away in the dissection close to the body of the organ, so as to expose its lateral surface (No. 5). The cut edges of the membrane may be here remarked, which, coming together from the posterior and anterior surfaces of the uterus, formed the two folds of this ligament. The cut extremities of the Fallopian tube, of the ligament of the ovary, of the round ligament of the uterus, and of the uterine vessels, which were situated between the folds of the broad ligament, may also be observed here.

The uterus, like most of the hollow muscles, having an external outlet, is lined internally by mucous membrane; externally by the serous membrane of the cavity in which it is contained; while the muscular fibres composing it are intermediate in position.

The serous membrane of this organ has been already described, in speaking of the formation of the broad ligaments; and I have only now to add respecting it, that it will be found to invest the whole of the posterior surface of the uterus, excepting, of course,

the os uteri, which projects into the vagina; and on looking to the fold (No. 7, Fig. 21), which is reflected from the rectum, it will be seen to pass downwards, to coat the last half-inch of the posterior surface of the vagina, before it reaches the back of the uterus, from whence it may be traced over the fundus, on to the anterior surface of the organ; while the fold (No. 8, Fig. 21,) will be observed leaving the anterior surface of the neck of the uterus to pass on to the bladder directly, without touching any part of the vagina. These circumstances are of great importance as regards surgical operations performed upon the neck of the uterus in cases of cancer, or other malignant growths, affecting the os uteri, and would deter most English surgeons from sanctioning any operative procedure implicating the neck of the uterus; although extirpation of the cervix uteri has been frequently performed on the continent, but not, as it appears to me, with sufficient success to warrant the adoption of the practice in this country.

XXI



This diagram exhibits a side view of the female pelvis.

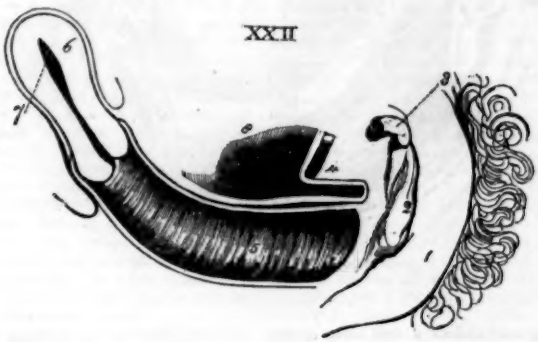
1. Articulating surface of the pubes.
2. Articulating surface of the sacrum.
3. Bladder much distended.
4. Vagina.
5. Uterus: the cut surfaces of the two folds of the broad ligaments, and the sections of the Fallopian tube, round ligament, and vessels of the uterus are represented.
6. Rectum.
7. Fold of peritoneum reflected from the rectum on to the vagina and uterus.
8. Fold of peritoneum traced from the uterus to the bladder.
9. Ureter.
10. Urethra.
11. Mons veneris.
12. Clitoris.
13. External labium.
14. Internal labium, or nympha.
15. Meatus urinarius.
16. Orifice of the vagina.
17. Sphincter vaginæ.
18. Sphincter ani.
19. Levator ani.

The muscular wall of the uterus, in the unimpregnated state of the organ, is about half an inch in thickness; the fibres composing it present the microscopic characters of the muscles of organic life: they are intersected by numerous blood-vessels of much larger size than the ordinary nutrient vessels of muscular fibre, and which vessels are

evidently destined to perform some other function besides the nutrition of the organ, and are doubtless subservient to the growth of the fœtus in utero. These vessels are adherent to the muscular layers, between which they pass, and are so circumstanced that they must follow the muscular fibres in their increased growth when the organ enlarges, and will be as readily compressed when it diminishes, or its fibres contract. The muscular fibres are arranged upon the same principle as those of other hollow viscera into layers, which decussate each other; some disposed circularly near the outlet of the organ, some longitudinally, some obliquely, and others transversely; all conspiring to the same object of retaining or expelling its contents. The intersection of the layers of muscular fibres by the trunks of the blood-vessels, constitutes the peculiar and characteristic tissue of the wall of the uterus, which readily distinguishes it from any other texture in the body. In the enlarged state of the organ the muscular fibres appear to increase in length rather than in thickness, or in the number of their superimposed layers. The paries of the gravid uterus at the full term is certainly not thicker than in its unimpregnated state, although its capacity is so greatly increased. The blood-vessels, nerves, and lymphatics of the impregnated uterus, are both elongated and increased in their diameters. The veins especially partake of this increase of growth, some being large enough to admit a goose-quill, or even the little finger, at the full period of utero-gestation.

Before I direct your attention to the cavity of the uterus and its lining membrane, I ought to explain to you more fully the form and position of the mouth of the organ. The os uteri projecting, as has been stated, into the vagina, is a transverse opening, bounded by an anterior and posterior labium, the latter of which is the most prominent. (Fig. 22.) The labia are nearly half an inch in thickness; they are smooth and rounded, giving a pouting appearance to the orifice, which is just large enough to admit a common-sized bougie. Within the mouth of the uterus are situated some small glandular bodies, to which the term of ovula of Naboth has been applied. The lining membrane of the uterus and its cavity are conveniently examined at the same time.

XXII



This diagram represents a vertical section in the median line of the uterus and vagina.

1. The external labium.
2. The nympha.
3. The clitoris.
4. Urethra laid open.
5. Interior of the vagina.
6. Section of the uterus.
7. Its cavity.
8. Interior of the bladder.

On laying open the uterus in its unimpregnated state in the body and fundus of the organ, we find a small, flattened triangular cavity, the anterior and posterior surfaces of which are in contact with each other. The two superior angles of this cavity are from half an inch to an inch apart, and from them, or into them, open the orifices of the Fallopian tubes, which are not more than half a line in diameter. The ovum, therefore, which is conducted into the uterus by these tubes must be exceedingly minute, and the slightest thickening in their lining membranes would obliterate their canals, and cause a complete barrier to fecundation. The lower angle of the uterine cavity is rather more than an inch from the two superior angles: it is directed to the inner orifice of the neck of the organ,

which is designated the os uterinum internum. The canal in the neck of this organ, which leads from the os internum to the os externum of the uterus, is about an inch in length. Its sides are in contact; it forms, therefore, a closed canal in its natural state: a small bougie, however, may be passed into it without much difficulty. The thick muscular wall which surrounds this narrow canal suggests the possibility of its being closed against the passage of the seminal fluid by the tonic contraction of its muscular fibres; and I venture to suggest that this may be one of the causes of the very frequent occurrence of sterility in females, otherwise apparently well calculated to fulfil the important function of childbearing. I am the more inclined to favour this opinion, because the remedy for such obstruction is more within our power than when the obstacle occurs in deeper-seated parts, or from more occult causes. This canal might readily be dilated by the use of instruments, and an ingress for the fecundating fluid insured thus far towards its destination, the surface of the ovarium itself. This notion is rendered still more plausible when we come to observe, which we shall do presently, that the ciliate epithelium scales are found only to exist in the last half-inch of the neck of the uterus; and I have in a former lecture explained to you that the onward progress of the seminal fluid, from the uterus to the ovary, is principally promoted by the ciliary movements with which these scales are endowed. It appears, then, to be of the first importance that the male secretion should be brought within the influence of the vibrating cilia; and we see the elaborate provision to effect this object in the male intromittent organ, which not only attains the os externum of the uterus, but is enabled, by its ejaculatory muscles, to propel the fecundating fluid with some degree of force into its orifice. These considerations render it probable that surgical aid may serve to remove a direct, and in some instances the only, cause of unfruitfulness.

The mucous membrane lining the triangular cavity of the body, and the canal of the neck of the uterus, joins that of the vagina (No. 5, Fig. 22); it is also to be traced into the minute canals of the Fallopian tubes, and at the fimbriated extremity of these tubes, as formerly stated, it becomes continuous with the peritoneum. This anatomical fact has not been sufficiently considered in connection with the too frequent occurrence of peritonitis in the puerperal state. In the neck of the uterus may be noticed a central raphe running in the longitudinal direction, from which pass some oblique rugæ, tending towards the cavity of the uterus, to which the term arbor vitæ has been given. The mucous membrane follows these irregularities of the neck, but is evenly spread over the triangular cavity of the body of the organ. The organisation of the mucous membrane of the uterus has not been sufficiently examined in reference to two very important functions which it has to perform, and which are peculiar to this membrane, viz., the formation of a periodical secretion (the catamenia) containing the red particles of the blood, occurring in the human subject only; and the production subsequent to impregnation of a plastic layer of fibrinous material, which is to form one of the coverings of the ovum (the membrana decidua). I believe myself that the human uterus forms an exception to the general rule, that the blood-vessels terminate every where by loops of anastomoses, and never by open mouths. I am convinced that this is the case in a uterus that has been impregnated, for a considerable period after the expulsion of the fœtus, when the organ has returned to its ordinary size. I have several times injected the vessels of the uterus, for the purpose of observing when and how they became closed after childbirth, but have always found the injection to escape from the open mouths of vessels situated on the mucous surface of the uterine cavity. In one preparation preserved in my museum of a uterus injected a week after childbirth, the open terminations of the blood-vessels are exceedingly evident. I ought, however, to state, that as yet I have only been induced to inject separately from the rest of the body, the uteri of females dying after parturition. The ciliate epithelium of the mucous membrane before alluded to, will be found on the posterior half of the neck of the uterus throughout the entire body of the organ and in the Fallopian tubes. Henle has discovered them even on the peritoneal surface of the fimbriæ which fringe the abdominal orifices of these tubes.

The uterus is supplied with arterial blood from two sources on either side: the proper uterine is the largest of the two arteries which it receives; it is derived from the internal iliac itself, or from some of its principal branches. This vessel passes between the folds of the broad ligament to reach the lateral part of the neck of the uterus. It is a very tortuous artery; in which circumstance we recognise an evident provision for the alteration in size and position of the organ in its impregnated state. It plunges into the substance of the uterus, which it freely supplies, gives some branches to the ovaries, and terminates, I believe, not only by anastomoses with its own branches, and with those of the spermatic artery, as well as being continuous by its capillary branches with the radicles of the corresponding veins, but also by open extremities on the mucous surface of the organ. The smaller artery distributing its branches to the uterus, is the spermatic. This vessel descends from the abdominal aorta just below the origin of the renal arteries, and having supplied the ovary, and communicated with branches of

the uterine artery, distributes its remaining twigs to the uterus. Both these arteries increase in capacity with the enlargement of the uterus.

The veins of the uterus, some of which I have reason to suppose begin with open mouths from the interior of the organ, while the rest have their origin, as in other parts, from the capillary arteries, terminate, after forming an uterine and spermatic plexus around their corresponding arteries, in the internal iliac vein as regards the uterine; and into the cava on the right side, and the emulgent vein on the left, as regards the spermatic vein.

The lymphatics of the uterus, like those of other viscera, are divided into deep-seated and superficial vessels which communicate with each other, and empty themselves into three sets of glands; those which leave the organ with the uterine vessels into the internal iliac glands; those accompanying the spermatic vessels into the lumbar glands; and a third set following the round ligament of the uterus through the inguinal canal, joins the glands in the groin.

The nerves of the uterus are derived from the hypogastric plexus of the sympathetic, and from the sacral nerves, especially the third pair. Dr. R. Lee has lately made some elaborate dissections of these nerves in gravid uteri of different dates, in which he has demonstrated that the nerves as well as the arteries, veins, and lymphatics, enlarge greatly with the increased size of the uterus during pregnancy. These dissections are the most perfect I have seen. The principal plexus, which Dr. Lee calls the utero-vesical, is situated on either side between the neck of the uterus and the ureter, as this tube passes to reach the bladder. Numerous filiments with ganglia upon them are found to surround the ureters and the vessels of the uterus; others plunge into the substance of the organ; many are to be seen immediately under the peritoneal coat, and are with difficulty separated from it. The nerves of the uterus communicate freely with those of the vagina, bladder, and rectum, and some leave the uterus accompanying the round ligament to the inguinal region. The spermatic plexus of the sympathetic, although communicating with the uterine nerves, seems to be principally expended on the ovary.

Having now completed what I had to say on the anatomy of the uterus, I shall, in the next place, beg your attention to the part this organ plays in the development of the ovum, and the nourishment of the fœtus, so far as they bear usefully upon the subject of these lectures. I allude especially to the contamination of the fœtus in utero from the poisoned fluids of the mother. In my last lecture I had traced the ovum from the ovary into the Fallopian tube: we will now follow it from thence into the uterus.

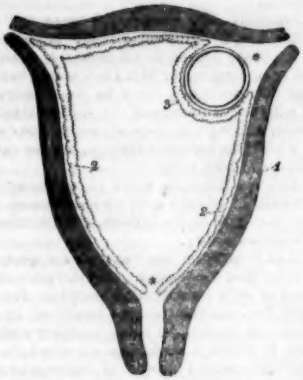
The period which the ovum takes to travel through the Fallopian tube has not been well ascertained. In rabbits, it is stated to be from three to five days; in the bitch, from ten to twelve; in the human subject, it is supposed to reach the uterus between the first and second week. With respect to changes which the ovum undergoes during its transit through the Fallopian tube, Messrs. Prevost and Dumas have remarked that in animals which are multiparous, and which have been purposely destroyed from eight to twelve days after a single coitus, that the ova in the Fallopian tubes varied in size, and that those nearest to the uterus were larger than those which had made less progress from the ovary. It appears, therefore, probable that the ovum increases a little in size while traversing the Fallopian tube; but when we consider that the uterine orifice of this tube is only half a line in diameter, it is clear that the ovum must be still exceedingly minute when it enters the uterus. Embryologists seem to agree that the germinal vesicle of the ovum disappears in the Fallopian tube, and that the embryo itself cannot be detected before the ovum has gained the uterus. According to Valentin, Dr. Barry, and Mr. Wharton Jones, the chorion is formed in the Fallopian tube, and is distinct from the zona pellucida, which they conceive disappears; Valentin says by liquefaction; while Müller, Wagner, Bischoff, and many others, consider the zona pellucida as identical with the chorion.

In the interval between conception and the transit of the ovum through the Fallopian tube, the uterus is undergoing preparation for its reception: from the inner surface of this organ a secretion takes place of a plastic fluid, which concretes into a kind of false membrane. This membrane constitutes what is termed the decidua vera; it lines the entire inner surface of the triangular cavity of the uterus, but not the canal in the neck of the organ: it occasionally closes completely the cavity of the uterus, blocking up its three orifices, but generally leaves it open towards the neck, and sometimes towards the orifices from the Fallopian tubes. In extra-uterine fœtation, where the ovum becomes developed in the ovarium, in the Fallopian tube, or elsewhere, still this provision is made in the uterus for its reception.

The general opinion is, that the ovum, on presenting itself for admission into the uterus, finds this organ closed by the decidua vera (No. 2, Fig. 23); that it insinuates itself between this membrane and the mucous lining of the uterus, and that there enlarging, it forms for itself a partial covering from the decidua vera, which it causes to project with it towards the interior of the uterus, and that thus what is called the decidua reflexa (No. 3, Fig. 23,) is formed. It is obvious that a portion of the ovum, according to this view, would not as

yet be covered by the decidua reflexa, viz., that which remained in contact with the mucous membrane of the uterus. This membrane, however, continues to pour out the same plastic secretion, and envelopes that part of the ovum which was opposed to it; this last portion of the decidua being formed later than the rest, has been designated the membrana serotina. It is to this that the placenta is to be afterwards attached.

XXIII



Section of the uterus, showing the formation of the decidua vera and the decidua reflexa.

1. Cut surface of the uterus.
2. Decidua vera.
3. Decidua reflexa.
* The points where the decidua is wanting.

XXIV

A human ovum of three weeks (from Wagner).

1. Chorion.
2. Amnion.
3. Embryo.
4. Vesicula umbilicalis.
5. Allantois.

Wagner states, that the earliest date at which an ovum found in the uterus has been satisfactorily examined, is that of about three weeks; its diameter at this period when separated from the decidua was five lines; the chorion (No. 1) was beset with little vascular tufts; it contained an embryo (No. 3) of about two lines in length. The vesicula umbilicalis (No. 4) and the allantois (No. 5) could be distinguished: the amnion (No. 2) was formed, and loosely enveloped the embryo. According to Velpeau, in an ovum of the tenth or twelfth day no embryo could be detected. In one of fourteen days Baer could see the embryo.

Dr. J. A. Wilson has favoured me with a manuscript account of a very interesting post-mortem examination written by his father, one of the first anatomists of his time, in which an ovum of the size of a mustard-seed was supposed to be recognised in the human uterus by himself, and by three of the most celebrated obstetricians of the day. As bearing upon this obscure point in the history of the ovum, and as showing the state of our knowledge in embryology at that period, I will read you Mr. Wilson's account of the dissection.

"June 18, 1786.

"Mr. Cruickshank and myself were desired by Mr. Horsley to be present at the opening of the body of a young woman, who was supposed to have poisoned herself in consequence of being with child. She was about twenty-one years of age, was supposed formerly to have had a bastard child, but had concealed it. It was also imagined that she had miscarried two or three times. The stomach was very little inflamed, hardly at all; she might, however, have taken laudanum, which does not act on the stomach, as she was perfectly well on the Monday night, was speechless on the Tuesday morning, and died in the evening. The uterus did not appear larger than the virgin's, but more vascular; but in cutting in to the ovarium of the right side we found the most distinct corpus luteum I had ever seen, of a yellow saffron colour. Mr. C. passed a bristle into the opening through which the ovum had escaped. Upon slitting open the uterus, we found it filled with a jelly, which, upon dropping upon it distilled vinegar, put on the appearance of a decidua, being bounded regularly by the cervix uteri; about the middle covered by a lamina of decidua was a blackish spot about the size of a mustard-seed; this Mr. C. supposed to be the ovum, and not more than a fortnight old; it most certainly, when compared with the fœtus of six weeks, was not more, and must have been within the month. Mr. Birnie made a drawing of the appearances within half an hour after the parts were taken out of the body. Dr. Osborn, Dr. Underwood, Dr. Garthshore, &c., were present at the dissection."

Another dissection of Mr. Wilson's, in which the uterus was examined at a still earlier date, also possesses great interest. I give it in his own words:—

" October, 1787.

"Mr. Ogle brought to Mr. Cruickshank the uterus of a woman he had opened, which seemed to be impregnated just before her death. The corpus luteum in one of the ovaria was remarkably distinct, and of a beautiful saffron colour. I injected the uterus with fine injection. Upon opening it we found a very vascular membrane lining the inside of the uterus, beautifully filled with the size and vermiliom; it resembled, when looked at through a magnifying glass, the decidua exactly; no ovum, however, could be seen either in the uterus or Fallopian tubes. It certainly was decidua becoming vascular."

PHRENOLOGY THE SCIENCE OF THE MIND,

ITS

APPLICATION TO MENTAL EDUCATION.

To the Editor of THE LANCET.

SIR,—I beg to offer a few remarks in relation to a letter signed Robert Dick, published in THE LANCET of the 5th inst, in which the doctrines set forth in my recent papers on the application of phrenology to the treatment of criminals are denounced as "dangerous and paradoxical."

As far as I can understand the views of Mr. Dick, he rests his opposition to my statements upon the simple ground that phrenology is false, since he does not seem to intimate that my application of the system is erroneously conducted, but that the doctrine upon which that system is founded, viz., that the mind in this life manifests itself through the instrumentality of the brain, is in itself a delusion. Now, as my papers were professedly intended for delivery before an audience by whom this doctrine is regarded as established, and were written with no other view than that of pointing out one of the applications of which it is susceptible, it appears to me that in his remarks upon them Mr. Dick was bound to confine himself to the points upon which alone they profess to treat. If, as appears to be the case, he is satisfied with the correctness of my application of the phrenological system, he should not mix up this application of it with the separate question as to whether the system has or has not any foundation in truth.

Although MR. Dick's remarks are, therefore, somewhat irrelevant to the subject on which they are put forward, I shall be glad as a phrenologist to be allowed to say a few words upon the value of his objections to the new philosophy.

If I rightly apprehend the views of your correspondent, the way in which he proposes to present an "insurmountable objection to some of the most fundamental doctrines of phrenology" is simply this. He assumes—

First. That so far from the manifestation of the moral powers of the mind being dependent upon the instrumentality of material organs, every human being is endowed with a moral sense, the manifestations of which are uninfluenced by that liability to congenital or other defect to which all transmitted organised structures are obnoxious, and which is therefore entirely independent of physical agency.

Secondly. That this moral sense, or "consciousness of right and wrong," is possessed in the same degree by all men (or nearly in the same degree, for Mr. Dick seems to think that it may slightly vary in the proportions in which it is possessed by different individuals, although he does not define the extent to which this variation may go, nor the causes whence it may arise).

Thirdly. That the sense in question is a "measure" of each man's possession of volition in regard to his actions, and therefore of his responsibility.

And from these assumptions he proceeds to infer that the doctrine, that the state of the mind of each individual, depends in all cases upon the conformation and health of its material instrument, the brain, together with the view to which it leads, that all men have not the same natural power to follow virtue or to abstain from vice, is entirely erroneous; an inference which will probably be regarded as indisputable by those who are prepared to grant the assumptions from which it is drawn.

But mere assumptions can, under any circumstances, possess little claim to attention; and the value of those above stated is considerably diminished by the vague way in which they are put forth, and the misgivings which the writer himself expresses regarding the extent to which they are to be adopted. Upon a little reflection, Mr. Dick will perceive that if the moral sense to which he alludes is not possessed by all men to the same degree, his entire argument must fall to the ground. We are, therefore, compelled to take his second proposition without the qualification at which he vaguely hints; in which case his argument leads us to the somewhat startling conclusion, that the poor inmate of the lunatic asylum who strangles his fellow-patient, and the mischievous idiot who fires for his own amusement the dwelling of his parents, are each, at the time when they perform these deeds, fully cognisant of the moral wrong which they are committing, and that they should be dealt with, to use Mr. Dick's words, "as persons whose own internal feelings charge them not only with being criminal, but with being voluntarily so!" In the case of the lunatic, the act arises from some affection or disease of the brain; in the case of the idiot, from congeni-

tal defect of that organ; of both of which circumstances the moral sense or consciousness of right and wrong is, according to Mr. Dick, completely independent.

I am disposed to believe that it will be unnecessary for me to do more than to indicate the conclusions to which the assumptions of your correspondent would lead; to convince your readers that the simple enunciation of them will not have the effect, which that gentleman seems to anticipate, of overturning the science of phrenology. I am further induced to abstain from entering into any argument to prove their fallacy, since, owing to the loose way in which they are stated, it is impossible to deal with them in that concise manner which it is necessary to adopt in a periodical work. Should Mr. Dick feel disposed at any future period to bring forward his doctrine of a moral sense acting independently of the brain, it would be desirable that he should adopt the precaution of defining the nature and extent of this sense, and the variations, if any, to which it is subject; together with the circumstances from which these variations may arise: also, since he admits that he is not certain but that an influence of the brain over the mind "*may*" exist to some extent, that he should explain the mode of reasoning by which he arrives at the certainty that the moral sense, a portion at all events of "the mind," is entirely independent of that element.

I may also be allowed to suggest that, in bringing forward propositions which he does not attempt to substantiate by any reference to well-authenticated facts, and which do not seem under any circumstances to admit of absolute demonstration, it would be proper for Mr. Dick to abstain from the course which he pursues in his present letter, of assuming that these assumptions cannot be questioned by any persons "having the slightest pretensions to candour or common sense."

Before concluding my remarks upon the letter of your correspondent, I must notice the following paragraph which calls for a reply:—

"Mr. Sampson speaks of a morbid state or action of the brain as being a cause of error. Now, I would ask, does this morbid condition of the brain partake of the nature of any other *known* form of cerebral disease? It cannot do so, for it is accompanied with none of the ordinary signs of disease of the brain, the greatest criminals having their brains as sound, physically considered, as those of the most virtuous men. What, then, is the nature of this morbid state or action of the brain; or, rather, has it any existence? and is it not a mere figment of the phrenologists?"

In answer to the above, I have only to remark, that if absolute *disease* of the brain had been predicated as being in all cases a concomitant of moral error, the argument of Mr. Dick might have had some weight; even although his assertion, that the greatest criminals have brains as sound, physically considered, as those of the most virtuous men, had been subjected to the modification which it requires in order to express no more than strict observation would warrant, viz., that *in a majority of cases* the brains of such persons are found in that condition. But Mr. Dick must be aware of the fact, that a large proportion of the maladies of the brain and other organs to which man is subject are cases of functional disturbance, stopping short of structural change. He must also know that many painful circumstances may arise from a defective conformation of organs, which organs, upon a *post-mortem* examination, may yield no evidence of disease, although their possessor might more or less have suffered all his life through their want of power. In this way the man with narrow chest and small lungs may find himself incapable of performing the actions of a man of ordinary strength, just as the man with a small organ of benevolence may prove incapable of evincing the ordinary virtues which we should exercise towards our fellows. In neither case, however, need we be surprised if the traces of *disease* are wanting. In looking over my papers, I find that I have made a perfectly clear distinction respecting the causes of moral error, viz., disease, functional disturbance, or defective conformation. I am, therefore, unable to perceive how the circumstance of some criminals being found to possess brains free from disease, can entitle Mr. Dick to presume that morbid states of the brain, capable of leading to moral error, can have no existence save as "figments of the phrenologists."

At the close of his communication Mr. Dick rambles into a charge against Mr. Combe upon a matter in no way connected with my papers. I think it right, however, to allude to it, because it affords a further illustration of the way in which an argument may be conducted by those who are disposed upon all occasions to assume the correctness of their leading premises. Mr. Dick says, "Mr. Combe gravely informs us that when examining the head of a girl who, by an accident, had lost that part of the skull which covers the organs of self-esteem and love of approbation, he found, on applying his hand over these organs, and so guiding the conversations as to call the corresponding faculties into exercise, that '*vivid movements*' took place!!! *Oh! credat Judæus, sed non ego!* Perhaps a more striking instance of a man of acknowledged talent being led into a hasty and laughably incorrect analogy is not on record. We have no reason to believe that the *intensive* states of the brain (of which, indeed, we know nothing) have the slightest resemblance to *muscular* action, which must have been present in Mr.

Combe's imagination, when he saw, or fancied he saw, the phenomenon he relates; nor have we any reason for believing that the brain has any movements at all, save such as are communicated to it by the arteries directly and indirectly by the effects of respiration on the arteries or the cerebral vessels generally."

By those who will take the trouble to look into Mr. Combe's work on America, vol. ii., p. 279, it will be seen that the "laughably incorrect analogy" to which Mr. Dick alludes, has no existence beyond the regions of that gentleman's imagination. They will find that in the description of the movements which he distinguished, Mr. Combe does not make the slightest mention of their having a resemblance to muscular action. He speaks of a "swelling up and a *pulsation*" of part of the brain, and nothing more: whether or not it is possible that these movements were "such as were communicated to it by the arteries," I leave to Mr. Dick to decide. It is probable that a very obvious mode of accounting for the phenomenon will occur to your medical readers."*

Regretting that it has been necessary for me to obtrude upon space which might have been more profitably occupied, I am, Sir, your faithful and obedient servant,

M. B. SAMPSON.

Clapham New Park, March 8, 1842.

THE RESPONSIBILITY OF CRIMINALS.

CEREBRAL CONFORMATION.

To the Editor of THE LANCET.

SIR,—Agreeing with your correspondent, Mr. Robert Dick, that "the same channel by which error (if error there be) is disseminated," should, if possible, be chosen to neutralise its ill effects, I beg leave to offer you these few observations on the remarks of that gentleman, in reference to the "statements in Mr. Sampson's papers, on the application of phrenology to the treatment of criminals."

In the first place, I quite agree with Mr. Dick, in believing that THE LANCET will find many "readers," to whom, like himself, "Mr. Sampson's late papers" will "appear" "to contain statements not less dangerous than paradoxical." Nothing less could hardly be expected at the *present* day. Why should phrenology, more than other sciences, escape the enmity of prejudiced minds? The same weapons which have so ingloriously assailed the truths of both religion and philosophy generally, experience assures us *will be* (even yet) no less "ingloriously" directed towards phrenology. The fate, however, of such opposition is to be anticipated by a reference to that offered to the splendid discoveries of a Copernicus, or a Galileo, a Harvey, or a Jenner. "With persons," however, "accustomed to moral investigation and discussion, and to a study of the harmony and adaptation every where manifested in the intellectual constitution of man," my opinions, as herein expressed, will, of course, constitute anything than "an irrefragable answer" to the observations of your correspondent.

Mr. Dick says, "The general inference from Mr. Sampson's statements and reasonings is, that a man's propensity to crime is wholly, or in a great measure, so far as he himself is concerned, accidental and involuntary; and that he is no more responsible for the unfortunate tendency he may labour under to violence, excess, &c., than he is for a congenital bad habit of body, or for acquired disease in any organ." Now, this "gratuitous and dangerous *theory*," as the author calls it, is supplied with the following "*simple and conclusive answer!!*" "Had nature, in any case, constituted a man so as that he was unavoidably, because physically, *prone* to crime, and so as that the strength of his volition was not equal, as a counterpoise, to that of his passions or propensities, she would *at the same time* (all analogy leads us to conclude) have withheld from him the *consciousness* of crime, and the sentiments of self-praise und self-blame."

It is not easy to reconcile the expression "PRONE *to crime*" with a state of things in which "the strength" *of* "volition" is "not equal as a counterpoise to that of" the "passions or propensities." The first presupposes a mere predisposition, the second an invincible necessity. As regards the "analogy," it refers, I should suppose, to

* It would be instructive if Mr. Dick were to communicate the means by which he arrives at a knowledge of the movements which can or cannot take place "in the intensive states of the brain, *of which, indeed, we know nothing*;" also the process by which he is enabled to divine, without any apparent clue, the ideas which "MUST" have been passing in Mr. Combe's mind upon any given occasion. Meanwhile, it is proper to state, that the experiment, regarding the result of which Mr. Dick so positively announces his refusal to let belief take hold of him, was repeated four times by Mr. Combe, that all the circumstances connected with it are detailed in his work on America with characteristic precision; that these circumstances are authenticated by a reference to Mr. Mapes (the father of the child), a well-known resident of New York, who had previously noticed similar movements occurring under similar circumstances, and that an analogous case is reported by Mr. John Grattan, of Belfast, in vol. ix., p. 473, of the "Phrenological Journal."

the mental condition of the lower classes of animals. If so, I would observe, that inasmuch as they are predestined by the Creator to derive their means of existence from the exclusive operation of the "passions" and "propensities," *they* are necessarily deprived of the faculty of "*consciousness* of crime," and also of "the sentiments of self-praise and self-blame;" or, what is the same thing, of *conscientiousness*. Man is, however, "*made after the image of his God*," and possesses, superadded to his passions and propensities, religious and moral feelings and intellect, the which severally vary in different individuals (and negatively constitute the sum of the criminal propensity, or liability to crime), and which variety constitutes the degree or extent of responsibility in each, or, in other words, determines his or her "number of talents."

If Mr. Dick would establish his theory, he must show that the possession of "consciousness" to the criminal is never the cause of a reformation in his conduct, and never remedies his "*propensity*" to crime. Many a man who is "*prone*" to crime is saved from it by his "consciousness," and his "unfortunate tendency" is thereby checked. If your correspondent reads the papers of Mr. Sampson with attention, he will not find that the expressions "unfortunate *tendency*," "*prone* to crime," "*propensity*," &c., mean an absolute *fatalism*, they rather signify a *difficulty* in preserving the conduct in harmony with the laws of social life. *Difficulty* by no means presupposes *impossibility*, and hence does the reasoning of Mr. D. not apply.

That gentleman should well remember, too, that "the congenital disability,"* of which he has spoken, though dependent on "physical conformation," has been wholly the result of an infringement of the natural laws, which provide not only that the mental powers generally (which include, of course, the moral and religious as well as the intellectual powers) should be *cultivated* equally with those of the body, if we would reap the full harvest of enjoyment within even our own reach; but also provides that upon the principle of acquired habits being hereditary, "the sins of the fathers are visited unto the children," &c., and therefore it is that crime is congenital; and so it is that "nature punishes those who err," both in themselves and offspring, and hence the accumulated inducement to acts of goodness. Your correspondent may choose to call this a "monstrous and palpable inconsistency," "a manifest and notorious departure from harmonious adaptation." The operation of the same principle, however, which provides an increasing ratio of punishment to successive generations, provides also a reward which greatly outweighs in amount of benefit to the numbers, the miseries of the unhappy few. If we reflect on this, together with the good effects which must result from the operation of the common claims of the few on the many (in virtue of those human sympathies so deeply implanted in our bosoms, and which are so well calculated to draw forth all those energies, whether of mind or body, capable of increasing their sum of happiness, by affording the protection and care such so much require), and add to it the moral restraint of experience so dearly bought, of misery so dearly purchased, we shall, I think, feel little inclined to agree with your correspondent, when he says "that there would most evidently be gross incongruity and gross injustice in making a man sensible of the distinctions of good and evil; and perfectly aware when he was forsaking the one and abandoning himself to the other, yet at the same time sending him into the world with a congenital disability of preferring the good and eschewing the evil."

I believe that at any rate few persons will be disposed to agree with Mr. Dick when he says, that "consciousness" is "the test and measure of a man's possession of volition, in regard to his actions, and therefore of his responsibility." "*Oh! credat Judæus, sed non ego.*"

I must, indeed, disagree with Mr. Dick, when he concludes that because criminals do not lose their consciousness when they are acting criminally, Mr. Sampson's theory is ill-founded, and that the influence which, as assumed by phrenologists, the brain exerts over the mind," "does not exist to the extent" "which they suppose." I have yet to be convinced that the belief in the immortal discoveries of Gall and Spurzheim would be "obviously an injustice and incongruity repugnant to all our ideas of harmonious adaptation in nature and equity in the Deity."

Those persons who, like your correspondent, are pleased to prefer prejudice to reason, should, if they will not think for themselves, give some credit to those who, like Mr. Sampson, industriously think for them. Anti-phrenologists should be well aware that the sum of *responsibility* in an individual is, under all circumstances, proportionate to the organisation of the brain; or, in other words, to the measure of his moral, his governing powers, and that, therefore, however an individual may be "constituted congenitally," it is by no means unjust and incongruous to regard him "responsible," as Mr. Dick would have your readers to believe. Reason and religion both assure us that there are varieties of responsibility in man, as surely as there are varieties in the organisation of his brain; and inasmuch as there is no one on this side of idiotcy without some faint sense of the moral obligations which surround him, it follows that no one

* The word "disability" should be used in a comparative sense.

is without some share of responsibility. The examination of the crania of all criminals is sufficient to prove this position the correct one. I may here add, that the "necessity" spoken of by Mr. Dick more generally arises out of the privations, the miseries of poverty, the degraded condition of our social state, and the artificial atmosphere which pervades existence, than anything else: the consequence of which is a degradation of the human species, shown in the transmission to the offspring of temporary and acquired habits of duplicity and dishonesty in the parent; and as has been before alluded to, the operation of the same principle provides us with the means of elevating the whole human family to that position the Creator has in his great mercy predestined it. From what has been said, I trust the "doctrines of phrenology" no longer appear "the most improbable and dangerous;" and that "the modifying our jurisprudence in conformity with phrenology," is neither a "folly" or "the last degree of absurdity."

I come now to consider the "pseudo-analogies" of your correspondent, as attributed by that gentleman to Messrs. Combe and Sampson. We are told that the reason why we should "not treat irregularities of mind in the same way as we treat all other physical disorders," is because "moral error is accompanied with a *consciousness*, on the part of the delinquent, that he is doing wrong—bodily disease is accompanied with no such consciousness." Physiologists are quite aware that each organ in the animal economy exercises *alone* its respective function. The eye is the organ of sight, the ear that of hearing. Mental functions are alone exercised by the brain, respiratory functions by the lungs, &c. &c. In diseased states of all these organs, however, the same principles of treatment apply: when there is excessive action we reduce it, and *vice versâ*. There is, then, an "analogy between the two cases," and the line of argument adopted by Mr. Sampson is not destroyed.

Contrary to the opinion of Mr. Dick, I assert, that "a morbid state or action of the brain" is "a cause of moral error," and that moreover "this morbid condition of the brain" does "partake of the nature of known forms of cerebral disease," I deny that "the greatest criminals" have "their brains as sound, physically considered, as those of the most virtuous men."

As regards the first position, I will merely observe, that an answer is to be found in many cases of suicidal mania, wherein "a morbid state or action" of the organs of destructiveness alone prompts the sufferer to devise means of self-destruction of suicide by hanging, drowning, and the like. Did Mr. Dick ever *practically* investigate mental disease? Now, not only do such cases "partake of the nature of *known* forms of cerebral disease," but they also are accompanied with "the ordinary signs of disease of the brain;" and, moreover, are curable by the employment of the usual therapeutic means. That criminals have not their brains *physically* sound, is proved by contrasting the skulls of Gollop, Williams, and Hare, with that of Melancthon, for instance.

In so far as your correspondent admits that the movements of the brain "are communicated to it by the arteries directly," he confirms Mr. Combe's assertion; for every one knows that mental excitement, of whatever kind, increases both the force and velocity of the blood through the brain; and hence the "vivid movements" described by Mr. Combe are seen to be inevitable: yet strange to say, Mr. Dick considers Mr. Combe to be "hasty and laughably incorrect."

In concluding this letter, I beg leave very respectfully and sincerely to refer Mr. Dick to the great volume of nature; its perusal will repay the most minute research; in it he will find no prejudices, no pandering to popular tastes, or party interests: what he there sees he may believe.

An attentive reconsideration of the nature of phrenology, and its application to the ordinary affairs of life, will, I trust, ere long, convince Mr. Dick that there is not that "insurmountable objection to the fundamental doctrines of phrenology" which that gentleman at present believes.

I must apologise for the length to which these observations have extended. Your very obedient servant,

JAS. GEORGE DAVEY, M.R.C.S.L., &c. &c.
One of the Surgeons of the County of Middlesex Hospital for the Insane, Hanwell.

Hanwell, March 8, 1842.

CONCOMITANCE OF CEREBRAL ACTIVITY WITH MENTAL EXCITEMENT.

To the Editor of THE LANCET.

SIR,—There is one portion of the reply to Mr. Sampson's article on Criminal Jurisprudence, contained in the current number of THE LANCET, which requires some comment. I refer to the remarks on the case cited by Mr. Combe, wherein he observed cerebral movement concomitant with mental excitement. The facts related are referred by Mr. Dick to the co-operation of imagination with preconceived opinion, whereby Mr. Combe has been induced to fancy that to be which in reality was not; an exceedingly charitable supposition, and one for which Mr. Combe ought to feel extremely grateful, inasmuch as his veracity is undenied, although his intellectual competence is doubted: nor might Mr. Dick's ascription appear altogether in-

correct to those who are unacquainted with the case; for, by the omission of the introductory observations, the case is made to rest upon the authority of Mr. Combe alone; whereas, as it is supported by other witnesses, their judgment must also have been materially affected.

The case appears in the "Notes on America" (vol. ii., p. 279). It is stated that the skull of the girl referred to had been fractured, but that the brain and its integuments did not suffer any severe injury. A part of the skull over the region of self-esteem and love of approbation was removed, and the motion of the brain was observable. Her father *first* observed the cerebral motions—its activity during intense excitement; and that the movements occurred "in one place, and became imperceptible in another, according as different impressions were made on the child's mind." He also perceived that "when the intellectual faculties were exerted the brain under the wound was drawn inwards." The parent, however, being unacquainted with the phrenological localisation of the organs, derived no conclusions from these facts, but merely related them *as* facts. But it will have been observed that a knowledge of the physical phenomena originated with the father, and not with Mr. Combe. When the child was introduced to Mr. Combe, he found that the organs of self-esteem and love of approbation were largely developed, and that when they were addressed by appropriate language, they were excited into palpable activity. If one organ only was addressed, the other became quiescent; and if the intellect was engaged, the movements in the organs of love of approbation and self-esteem ceased. Such are the facts as related. They do not rest upon the authority of Mr. Combe alone; for the names of the father and the physician who attended the patient are published, and the accuracy of the statements may, therefore, be tested. Moreover, the facts were observed before they were presented to the notice of Mr. Combe, and he merely assumes the functions of a reporter—relating facts, some of which he collected from previous observers, and some of which came under his own cognisance. Considering, then, that the case is well authenticated, —that the facts are substantiated by non-phrenologists as well as by phrenologists, and therefore by some persons who had no preconceived theory to promote,—I do submit that, before Mr. Dick employed his risible muscles, and published his contempt of the related facts, he should have exercised a little reflection, and inquired whether the statement was based upon insufficient evidence, or if any of the facts had been exaggerated. For it does not follow, that because facts do not accord with Mr. Dick's preconceived theories, they must necessarily be absurd, and engendered by imagination.

But the case related by Mr. Combe is not of that solitary description which we might have inferred from the remarks of his critic. Cases where cerebral motion has been consequent upon mental excitement have not been infrequent. The rarity of this case consists not in the "vivid movements," but in this, that specific regions became active according as specific feelings were evolved. Mr. Dick should, therefore, have criticised the organic, not the general cerebral motion. Premising, indeed, that the brain is a congeries of organs, as is demonstrated by the phenomena of mental action—the development of some powers, and the deficiency of others—dreaming, and insanity; the idea that the activity of certain regions of the brain is in accordance with the feelings eliminated, is far from improbable, although the illustrative facts may be scarce. There are, however, many cases on record where excitement has occasioned general cerebral motion, varying with its intensity and duration. As in physiological disputes, facts are the best arguments—I shall notice a few cases.

Sir Astley Cooper relates the case of a man from whom a portion of the cranium was removed, whereby the brain was exposed; and he states that on examining the head "he distinctly saw the pulsation of the brain was slow and regular, but at the time he was agitated by some opposition to his wishes, and directly the blood was sent with increased force to the brain, the pulsation became frequent and violent." The "Medico-Chirurgical Review," of October, 1835, contains a similar case. The writer says, that he "had frequent opportunities of witnessing some interesting phenomena in a robust young man, who had lost a considerable portion of his skull. For, when excited by pain, fear, or anger, his brain protruded greatly, so as sometimes to disturb the dressings which were applied; and it throbbed tumultuously in accordance with the arterial pulsations." A similar case has recently come within my own knowledge. A person has had his skull fractured, and a portion of the bone having been removed, the brain is partially exposed. Whilst under the influence of dreams the agitation is palpable, and rapid movements occur in the brain; and it is stated by his friends that there is no occasion for his language to indicate when he labours under mental excitement; for there is vivid cerebral action, and it protrudes from the skull. The action ceases when mental quietude is restored. Confirmatory cases might be cited from Richerand.

Much more evidence could be adduced to show the connection which subsists between mental activity and cerebral action; but enough has been cited to show that Mr. Combe has not published an altogether novel fact; but that, if in the present instance imagination has been more powerful than

judgment, he has erred with other philosophers, some of whom were never inclined to phantom-hunting. But Mr. Dick has, I fear, added another name to the catalogue of those who have overthrown their own opinions, by stating and attempting to prove too much. I am, Sir, yours truly,

E. J. Hytche.

12, Brunswick Terrace, Islington,
March 7, 1842.

MORBID ACTION OF THE BRAIN A PROOF OF MIND?

To the Editor of The Lancet.

Sir,—I shall esteem it a great favour if you can find a corner in any part of your next Number for the following short remarks, explanatory of an argument employed in my paper in your last Number: the importance of which argument does not, I fear, fully appear, from the brief manner in which it is there stated. I shall put it in the fewest possible words.

Mr. Sampson throughout his paper, and phrenologists generally in their discussions, speak of a "morbid state" or "action" of the brain; and by this, both he and they obviously have in view a source or kind of moral and intellectual disability, *different* from that which is due to conformation. Now this morbid action is either physical or it is not; it either has physical signs, or it has not. If phrenologists cannot point out its physical nature, nor indicate any physical signs attending it, that is equivalent to a confession that it is the mind, after all, which modifies the action of the brain, and not the contrary, excepting in cases of palpable cerebral disease. Now, phrenologists often talk of "morbid action," with reference to the brains of persons, in whom, neither before nor after death, was there the slightest physical cerebral derangement discoverable. This morbid action, then, if it had any existence at all, must, so far as we have data for determining the matter, have had its seat and origin in the mind, and not in the brain, and can only be referred to the latter, by the most gratuitous *à posteriori* imputation. For while there is unequivocal proof of moral or intellectual aberration, there is none whatever, excepting what is purely inferential, of physical cerebral derangement, or, in Mr. Sampson's words, of "morbid action" of the brain. That gentleman may seek to justify himself by saying that he means simply undue states of "activity" of different organs of the brain: but if those states rise into "morbid" degrees, and are "physical," let us have the proofs of their existence. To quote moral or intellectual phenomena as proofs of them, without other and physical evidence, is the plainest possible *petitio* of the very point at issue between us; namely, whether the primary morbid movement be not mental rather than cerebral. My impression is, that this is a point which will for ever baffle and elude human research; and the object of this paper is not to attempt to advance anything positive on this subject, but merely to show that Mr. Sampson's views are just as improbable as the contrary. Your obedient servant,

Robert Dick.

March 6, 1842.

On the Diseases, Condition, and Habits of the Collier Population of East Lothian. By S. Scott Alison, M.D., Hon. Sec. to the Medical Society of London.

In continuation of the observations on the health and condition of the collier population of East Lothian, published at page 802, Dr. Alison remarks,

"The most common diseases of infancy are not different from those which affect the children of other classes in this country. Some, though not peculiar to collier infants, yet are more commonly remarked among them than among the infants of those classes of the community who are in more comfortable circumstances, and who take better care of their offspring, and others, although not more commonly remarked in this class of infants, are yet much more severe, and much more mortal.

"Amongst the first may be ranked inflammation of the bowels, and of their internal covering the mucous membrane, diarrhœa, prolapsus of the rectum or lower bowel, worms, vomiting, atrophy or wasting from strumous enlargement and degeneration of mesenteric glands, inflammation of lungs and their covering the pleuræ, inflammation of the windpipe where situated in the neck, constituting laryngitis and croup, and, in its lower part, where distributed to the lungs; constituting bronchitis, a very common disease among those children who are neglected and exposed to cold; inflammation of the brain and of its coverings, both acute and chronic, ending in the formation of water, purulent matter, softening and degenerating of the structures; irritation of the brain, attended by convulsions, and not unfrequently terminating in loss of voluntary motion in a part, or one or more, of the external or internal senses; itch, the various rashes, the various forms of porrigo; excoriations about the private parts from the continued presence of excretions; burns, scalds, contusions from falls and violence, scrofula in various forms, and general debility and emaciation of body; small-pox, proceeding from contactual contagion and the venereal disease, contracted before or at birth.

"The diseases which, though not more commonly remarked amongst collier infants

than others, but which are generally more severe, are the specific diseases of children, viz., measles, scarlet fever, and hooping-cough. These are not only more severe, but are also very much more mortal among the children of colliers than among those of farm-labourers or hinds, farmers, or persons in comfortable circumstances. The mortality of measles and hooping-cough is much increased by the common supervention of inflammatory action in the bronchial tubes and in the lungs. The mortality of scarlet fever is also increased by the accession of over-action of the brain and its coverings, of the lining membrane of the bronchial passages and of the air-cells of the lungs, during the active stage of the disease; and convalescents not unfrequently die of general dropsy, the product of disease of the kidney, which has been induced by exposure to cold, soon after recovery from this very important exanthema. Many convalescents from scarlet fever have died under my care in consequence of the supervention of dropsy.

"Inflammation of the bowels among collier infants has frequently come under my care, and many deaths have occurred therefrom. It attacks at any period from the first few hours of life, and is more mortal the younger the infant is, and runs its course in a few hours, marked with much agony. The causes are exposure to cold, and the introduction into the stomach of acrid agents, such as whisky-toddy and coarse food. When the disease is confined to the mucous membrane there exists less danger, and the little patient is troubled with frequent dejections of slimy and bloody stools.

"Diarrhœa is a very common disease of collier infants, and although by no means a mortal disease yet carries off many children, both immediately and remotely, by the supervention of other maladies. Many infants suffer great relaxation of the bowels for weeks and months together, and have no attention paid to their ailments, but are treated in the usual indifferent manner. The persons and clothes of many are seldom washed, and the little sufferers seek relief when and where the call is made; and in consequence of this their persons and apartments pollute the surrounding atmosphere to such a degree as to render it highly disgusting. I have known the bowel to be forcibly extruded to a considerable extent in consequence of the irritation of long-continued looseness, and I believe the injury would be of a permanent nature. This disease weakens the whole system, drains the fluids, interferes with the digestive processes, and induces ulcerations of the bowels, enlargements of the mesenteric glands, and that general atrophy which again leads to the formation of many serious diseases, and more particularly those which are characterised by the strumous character.

"The causes are, unhealthy milk from the mother, coarse and irritating articles of food, raw and unwholesome vegetables or fruits, inattention to provide that diet which is suitable for delicate children, and the abuse of strong purgative medicines; insufficient clothing, suppression of the transpiration of the skin from cold, or the constant presence of filth upon that important organ.

"Worms are very common among collier children, particularly the lumbrici and the ascarides. The presence of these, as well as all parasites, for the most part depends upon a want of vigour either in the whole system, or in that part only in which the parasites reside. These worms where there exists general debility go to increase it, and where the general health is good frequently break it down, by interfering with the digestive processes, by inducing looseness of the bowels, by propagating irritation to the spinal marrow and brain, thereby inducing convulsions, palsies, and hydrocephalus, and by preventing the growth and development of the various organs of the body.

"Tabes mesenterica, or mesenteric consumption of children, is a common affection among collier children, and is far more frequently found amongst them than among the children of persons in comfortable circumstances. I think it may be in some measure dependent upon a general strumous habit of body, but I have generally found it existing under circumstances which have led me to regard it as chiefly the result of neglected diarrhœa, intestinal irritation, and errors in diet. The affected glands become enlarged, and often reach the size of field-beans, or even of a hazel-nut; and when divided they present a yellowish cheesy aspect, and are often of a soft consistence. Death is a common result of this disease, but many children who have assuredly undergone great disease in these parts, upon being put upon a course of life of a more salubrious character, have been restored to perfect health. This disease is readily distinguished by the great emaciation of the body, not necessarily accompanied by errors in respiration, by hardness and enlargement of the belly, and generally by frequent dejections of a mucous or white colour.

"Inflammation of the windpipe at its course in the neck, and in its ramifications in the lungs, of the lungs and of their coverings, are very frequently remarked among collier children, but not more frequently than among the offspring of other classes in the same moral and domestic condition.

"Laryngitis and croup hurry off their victims within a few hours; and in general so rapid is the progress of these diseases, and so severe their character, that the infant is very frequently moribund when the medical attendant pays his first visit. I have attended many infants under croup, and have reason to think that many have been saved by the immediate adoption of the most powerful remedial agents, who would doubtless have expired had these measures been delayed one

hour longer. Many have died who might have been saved under tolerable activity on the part of parents in procuring medical assistance; and the melancholy fact is well known to me that some children who had been extricated from the jaws of death by dint of great exertion, have forfeited their lives to the after carelessness and supineness of their parents, who, instead of cherishing and protecting them, have allowed them to wander to the door, and to be exposed to the inclemency of the weather.

"Inflammation of the windpipes at their distribution in the lungs is a very common disease among collier infants, and I am pretty certain that few arrive at the eighth year without having experienced at least one attack. When the infant is very young death is a very common termination of the disease, and when the child is fortunate enough to recover from this complaint he very commonly suffers for months, and even years, an occasional difficulty of breathing, cough, and wheezing, which are very liable to be aggravated upon the slightest exposure to damp or cold.

"Inflammation of the lungs and their covering, the pleuræ, is also frequently observed in collier children, and is well known to be a very mortal disease. When it proves mortal in its acute stage death usually takes place within eight days, but where the patient survives this dangerous period he frequently suffers from serious morbid alteration of structure, such as condensation, obliteration of air-cells, infiltration of purulent matter, the formation of abscess, the effusion of serum, or sero-purulent fluid, into the cavity of the pleuræ, and abnormal adhesions of the serous covering of the lungs, with the serous covering of the ribs. These morbid alterations give rise to difficulty of breathing, and various errors in respiration, corresponding with the character of the lesion which has been produced. The general health suffers, and the patient may die within a few weeks, or may survive for years, according to the progress and urgency of his symptoms.

"These inflammatory affections generally proceed from cold, with which the patient has ample opportunities of meeting from exposed bosoms, uncovered feet, windows without glass, ill-fitting doors, houses anything but weather-tight, and neglected respiratory ailments.

"Inflammatory affections of the brain and its coverings come next to the preceding diseases in respect to frequency. Collier infants are very subject to these complaints, and many died annually in the district in which I resided, both immediately, and also at some distance of time, in consequence of various lesions induced in the structures which had been the seat of the inflammatory action. It is much more common for infants who suffer inflammation of these parts to die within a few days than to survive any considerable length of time; and those who survive the acute stage, for the most part, die of hydrocephalus, convulsions, and general atrophy, or suffer for the remainder of life imperfection of some or all of the intellectual or moral faculties, of the external senses and voluntary motion, in consequence of structural alteration. Some few recover their health entirely, and this occurs more frequently among the older and the more vigorous patients than among the younger. Many cases of general atrophy among collier infants have come under my care, and their history afforded good reason to make me believe that the weakness of the circulation, the imperfect nutrition, the imperfection or almost deprivation of voluntary motion, and the inertness of the moral faculties, depended entirely upon inaction of the nervous centre, which had been induced by inflammatory action, and which in all probability was co-existent with a preternaturally soft or otherwise unhealthy condition of the structure of the brain and spinal marrow.

"The causes of these affections are numerous, and include blows, falls, dentition acting upon a patient of preternaturally excitable brain, worms, morbid and acrid secretions in the stomach, bowels, liver, and gall-bladder; the use of whisky, or other spirituous liquors; poisonous articles, including narcotics, &c.; and irritable condition of the mucous membrane of the bowels, often connected with neglected diarrhœa.

"Scrofula is very commonly remarked among collier children, and manifests itself at all periods from the first few days after birth. It assumes various forms, but the most frequent are, in early infancy, small circumscribed purulent tumours, about the size of field-beans, occurring on all parts of the body, commonly increasing slowly in size, and little disposed to ulcerate and evacuate their contents. This form almost invariably proves fatal in a few weeks. I remember attending one poor infant, and I believe I incised not less than twenty such purulent tumours. As soon as one set was disposed to heal another came out, and the patient ultimately died. Scrofula not unfrequently manifests itself in the form of severe and lasting irritation, frequently accompanied with ulceration at the various orifices of the body, where the mucous membrane unites with the common integuments, such as the edges of the eyelids, the nostrils, the anus, and the vagina in females.

"Subcutaneous suppuration is also a common form of the disease. The skin is observed to be slightly elevated, and it feels boggy, affording to the fingers the sensation of fluctuation. If the humour, which is generally thin, greenish, and unhealthy-looking pus, be not evacuated, it acts as a foreign body, separating the integuments from the subjacent adipose tissue in the direction of its gravity, and this is effected without any

very obvious elevation of the separated integument. The most common seats of this form of scrofulous action are the integuments of the forehead, head, face, and neck. I have seen the eyelid the seat of this affection, and in one case loss of vision in the corresponding eye was the consequence, owing to the eyelid being so contracted by the cicatrix as to be no longer capable of covering the eye.

"Enlargement, and a soft cheesy condition of the glands situated in the mesentery, is another form of infantile scrofula, and frequently occurred among the collier infants who came under my care. This scrofulous condition of these glands gives rise to emaciation, hectic fever, fulness and hardness of the belly, which together constitute the disease which has been already noticed as tabes mesenterica, or mesenteric consumption.

"Scrofula is frequently developed in the lymphatic glands of the neck, axilla, and groin, and is characterised by slow suppurative action. The purulent matter is generally thin, sometimes greenish, and mixed with white curdy flakes, but is also sometimes of a brownish colour, like toast-and-water, and very thin in consistence. The fluid sometimes forms a circumscribed tumour, but very frequently burrows under the integuments, vessels, and muscles to a very considerable extent, unless the bistoury is effectually applied, and even in spite of this the burrowing occasionally goes on. The muscles, veins, and arteries are frequently as completely separated as if they had been dissected by the anatomist. A poor emaciated girl, suffering with a scrofulous abscess of this nature, at the angle of the jaw, had her last frail link with life wrenched asunder by a copious bleeding which took place from a vessel which had become ulcerated. After death I examined the abscess, and found the cavity filled with clotted blood, and the parts as nicely dissected as I had ever seen them in the dissecting-room.

"The spongy parts of the osseous system, including the heads and articulating surfaces of the long bones, the short bones, the bodies and processes of the vertebræ, and the ethmoidal bone, are the common seats of scrofulous action in collier children, giving rise to white-swellings when the joints are implicated, to the formation of purulent matter, abscess, and cloacæ. When the vertebræ are the seat of the disease, which is very commonly the case, the spinous processes swell, project, and are painful to the touch. When in this condition they are said to be carious, and may become the seat of suppuration giving rise to lumbar abscess. The anterior part of the vertebræ, viz., the body, is likewise subject to this scrofulous caries, perhaps more so than the spinous processes; and when suppuration takes place, and the purulent matter, after coursing along the psoæ muscles, is evacuated at the groin, the disease is called psoas abscess. I have met with many collier children labouring under lumbar and psoas abscess. The fluid was usually poured out in great abundance, bearing out occasionally a particle of bone, was thin and mixed with white curdy flakes, the flesh wasted fast, the health rapidly sank, and death invariably terminated the protracted sufferings of the patients.

"The causes of the various forms of scrofula to which collier children are subject, are hereditary disposition, in many cases dependent, in a great measure, on the practice of marrying relatives, which is very common among colliers, as is at once suggested by the frequency of the same name in a collier community; the irregular and unequal diet; dissipated habits; the inhalation of a polluted atmosphere at home; and, in short, the many sources of deterioration of health which are at once discovered by an inspection of the domestic condition of colliers.

"The venereal disease, I have reason to think, is occasionally present in collier infants, having met with several children who had extensive disease partium generationis, which I doubt not was contracted before or at birth.

"Fever is comparatively little observed among collier children for the first few years of life, although many cases of continued fever in infants under three years of age have come under my care. I have frequently found all the members of a family, including five or six children and the parents, ill of typhus fever at one and the same time, the infant, or youngest, only being free from an attack of this distemper, or only suffering under symptoms which could not strictly be called fever. Dr. Clutterbuck, of London, considers that acute hydrocephalus is to infants what fever is to adults; and although I cannot admit this proposition altogether, still I think that cerebral excitement tending to the formation of water may occasionally supervene during the fever of infants, and effectually disguise or supersede the original disease.

"Fever proved mortal to collier children occasionally, but less frequently than to adults, in proportion to the numbers affected.

"Accidents are very commonly experienced by collier infants, as falls, scalds, and burns. Falls occasionally produced serious disease of the joints and spine. Scalds and burns occasionally proved mortal, and when the patient recovered, serious contractions of the neck and limbs were the occasional results.

"Boys and girls at the time of their commencing labour under ground are not, as far as I am aware, remarkable for bad health, but they now become exposed to many sources of disease, and their frames are now the subject of much more tear and wear than falls to the lot of other children in the neighbourhood, who remain at school, or are em-

ployed at agricultural operations, or in the various trades.

"It is unnecessary at present to enter into the particulars of each disease, and of the various injuries to which youths are subject, as these will be given when the diseases of the colliers come under observation; but I may here mention that these young people suffer much from inflammatory affections of the chest, from irritation in the bronchial passages, arising from exposure to cold, and from the inhalation of an impure atmosphere; that their growth in vigour and health and due proportion is very much deteriorated by excessive labour, irregular hours, and by night employment; and that many of them become maimed, or are deprived of life, by the various injuries to which they are subject in their employment, viz., contusions, fractures, wounds, and lacerations.

"The diseases of the pectoral organs are so very common among colliers that scarcely an individual above the age of twenty years, who has been employed for a considerable time at coal-work, will be found, in whom these organs are in a healthy condition. Chronic bronchitis, or inflammation of the air-tubes of the lungs, is one of the most common diseases of colliers, and is generally found superadded to every other disease, either of the lungs or of other parts, from which the collier may chance to suffer.

"For the first few years chronic bronchitis is usually found alone and unaccompanied by disease of the body of the lungs. The patient suffers more or less difficulty of breathing, which is much affected by changes of the weather and by variations in the weight of the atmosphere; he coughs frequently, and the expectoration is composed, for the most part, of a white frothy and yellowish mucous fluid, occasionally containing blackish particles of carbon, the result of the combustion of the lamp, and also of minute coal-dust. At first, and indeed for several years, the patient, for the most part, does not suffer much in his general health, eating heartily, and retaining his muscular strength little impaired in consequence. The disease is rarely, if ever, entirely cured; and if the collier be not carried off by some other lesion in the mean time, this disease ultimately deprives him of life by a slow and lingering process. The difficulty of breathing increases and becomes more or less permanent, the expectoration becomes very abundant, effusion of water takes place in the chest, the feet swell, and the urine is secreted in small quantity, the general health gradually breaks up, and the patient, after reaching premature old age, slips into the grave at a comparatively early period with perfect willingness on his part, and with no surprise on that of his family and friends.

"So seldom is this disease entirely cured, that many individuals who have in youth worked a few years only at coal-work, and have then left it for some other employment, have continued during the remainder of life subject to cough, and to expectoration, which has occasionally been black. I have met with many individuals who have returned to East Lothian after an absence of many years, during which they had been employed in different capacities, as soldiers and tradespeople, who have continued to cough and to expectorate blackish or bluish mucus."

METROPOLITAN COMMISSION OF LUNACY.

To the Editor of THE LANCET.

SIR,—The following results of the Metropolitan Commission of Lunacy during the last five years, as set forth in the returns ordered to be printed by the House of Commons, on Feb. 3, 1842, may not be uninteresting to your readers.

Number of Houses under the Care and Inspection of the Commissioners.

Pauper and private patients	4
Private patients only	32
Total	36

Expenses of Commission.

	£	s.	d.
Fees to two barristers	2920	0	0
Ditto to five physicians	6498	0	0
Salary of secretary	2000	0	0
Chaise hire, and other expenses	2165	17	10
Total	13,583	17	10

Average cost of inspecting each house, £388.

Results.

Licences refused	1
Ditto, suspended	0
Ditto, revoked	0
Total	1

It further appears that of the thirty-two houses for private patients—

5 are kept by resident medical proprietors.
4 situated respectively at Clapham, Upper Clapton, Chelsea, and Fulham, by physicians resident in London.
16 by resident proprietors, not being medical men.
7 by non-resident proprietors, not being medical men.

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It also further appears that of the counties under the joint jurisdiction of the commissioners and the quarter-sessions, 14 contain no licensed houses, and the remaining 26 contain 87 only, and these 87 houses do not include above 2500 patients of all ranks.

It further appears, also, that in 25 of these 26 counties, the returns of licences refused, suspended, and revoked, is *nil;* in the remaining county, viz., Dorset, the return is—Refused, 1; suspended, 0; revoked, 0.

Extract from the Annual Report of the Metropolitan Commissioners for 1838:—

"It appears from the returns already mentioned, that the total number of licensed asylums within England and Wales, exclusive of the metropolitan districts, is only about eighty, and that in a large majority of these the number of patients is extremely small; it further appears, that in several of the largest counties in England, and in the whole of Wales, not a single licensed asylum was to be found, a circumstance which the commissioners can hardly reconcile with facts that have otherwise come to their knowledge. It would seem to be a not unfair inference, that besides the houses for which licences have been taken out, in conformity with the Act of Parliament, there must exist in different parts of the country other and unlicensed establishments in which persons are confined as insane patients (perhaps even without medical certificates) in contempt and defiance of the law. To what extent this practice prevails the commissioners have no means of forming an opinion, but it is one which may obviously lead to the most glaring and dangerous abuses, and which, therefore, strongly calls for a searching investigation and an effectual remedy."

Ditto, for 1841:—

"With the view of rescuing persons, as far as may be, from unnecessary discomfort during their residence in these asylums, and in order to promote their liberation as soon as it can be effected with safety, the commissioners *have issued express direction* (quere, *when*?) that a sufficient number of keepers shall in all cases be employed, *so as to obviate the necessity of personal restraint, except in extreme cases;* and they have also endeavoured to establish some system of classification, in order that the convalescent patient may neither be confounded with the others, nor his recovery be retarded by associating with persons labouring under violent or confirmed mania.

"It is satisfactory to add, that these endeavours have been seconded by the proprietors and superintendents of the three large houses, where classification is chiefly necessary. The commissioners feel bound to report, that those persons have *lately* bestowed much attention on this subject, and have, in fact, incurred considerable expense in carrying into practice the recommendations of the commissioners."

The above extract is the first allusion made in any of the reports to this most important topic.

I wish I could have added the amount of the expenditure in the twenty-six counties; but the returns are so complex and confused as to be unintelligible: it seems, however, enormous. I am, Sir, your obedient servant,

DETECTOR.

March 15, 1842.

REPLY OF MR. HILL TO DR. COOKSON.

To the Editor of THE LANCET.

SIR,—The following account of the "disclosures of a gentleman" alluded to by Dr. Cookson in his letter published in your Journal last week, I have since received in a written communication from the gentleman himself:—

"Mr. I., of D——, one day came into the yard after the death of Mr. M., and said he (Mr. M.) was soon finished; he asked me if I knew anything concerning him, I told him I thought he was roughly handled; but, Sir, at that time my word was not to be taken, as you all well know; I was not in the room with them, neither did I find any reason to say so from the treatment I received from the keepers, as nothing of the kind was used towards me; but I heard an unusual noise, and at that time I was ready to set forth fancies for realities. I should be sorry in saying anything against the institution, as I am well convinced from what I have seen and experienced of it, that it is deserving of my highest praise."

In the course of an examination at the board of the Lincoln Asylum on Monday last into the said disclosures, the house-surgeon stated, that he had questioned all convalescent patients, previous to their leaving the house, as to any ill-treatment of the other patients observed by them from the attendants; and that the allegement in question was the first complaint which had been made.

The following is an extract from an entry by Dr. Cookson as house-visitor, March 7th, 1841:—

"The dismissals of attendants for cruelty have ceased, and the patients who leave the house speak well of the treatment they have received."

With regard to the sentiment attributed by Dr. Cookson to yourself, on the subject of *restraint*, the following more honest quotation of your words than he has given may lead your readers to conclusions different from those which Dr. Cookson has intended, and honourable to yourself:—

"The only question that admits of controversy is, whether, when coercion of some kind is required, and applied by all parties, bands, instrumental restraint, and mechanical advantages, should be altogether discarded, and replaced by the force of the keeper's hands and arms? Under which treatment does the patient suffer least, and

has he the best chance for speedy recovery, the exclusive "keeper-restraint" system, or the mixed treatment, in which instrumental restraint is partially employed? And, if it should turn out that the advantages are pretty equally balanced, or that they preponderate in favour of occasional mechanical restraint, are not the liabilities to the excessive application of instruments, adequate reasons for foregoing the use of an agent that may be dispensed with, and is so likely to be abused by the keepers, at least in large asylums?"—See editorial remarks in THE LANCET, No. 11, p. 377, December, 1840. I am, Sir, your obedient and faithful servant,

R. GARDINER HILL.

March 14, 1842.

P.S.—By the way, I have seen lately on our board-room table a copy of the Dorchester Asylum Report refused by Dr. Button on application from myself (see LANCET, Feb. 12, 1842, p. 693), but transmitted to "Dr. Cookson with Dr. Button's best respects." This reminds me of the official refusal of the governors of Bethlem to send a copy of their rules to the Lincoln Asylum, as appears upon our minutes, and as noticed in the printed report of the commissioner officially appointed to inquire into the state of Bethlem. Doubtless, whenever these institutions may have anything creditable to themselves to communicate, they will become more communicative.

CREOSOTE IN WHISKY?

To the Editor of THE LANCET.

SIR,—On reading the account of the inquest which you held on a policeman who died from the effects, it would seem, of whisky and water given to him by some chemist, it has struck me that his death might be caused by creosote, which I have understood is extensively employed by distillers to give the peat-reek flavour to common spirit. Of this I am certain, that in my own case I have found ill effects from a small quantity of whisky and water repeatedly, when thrice that quantity of brandy and water have produced no effect, and that not in one instance only, but in many, so that for a long time I have abstained even from a wineglass of whisky and water. I fear that other cases may come before you. I do not, therefore, scruple to send an anonymous letter, in the hope that a hint may be of service, and to subscribe myself an admirer of your conduct as coroner, although a Conservative. Your obedient servant,

A. C.

March 14, 1842.

*** We publish this letter to afford any other correspondent the opportunity of confirming (if the means exist) the supposition of the writer, who errs, however, in his version of the inquest. The man on whose body it was held, died from the effects upon his head of a fall which he received while intoxicated. The policeman who gave evidence was in a state of semi-stupor, the consequence of the debauch of the night in question. The "chemist," however, might have analysed the remainder of his whisky (if any did remain) unsuccessfully for creosote. The quantity drunk was, perhaps, in this case potent enough to render the quality a minor point of consideration.

SHERIFF'S COURT.

GIRTIN *v.* PULLEN.

[The attorney for the plaintiff has forwarded to us the following case for publication, as one of a kind which not unfrequently occurs in medical practice, and may be of service to be known to surgeons]:—

FEB. 23, 1842.—This was an action brought by a medical gentleman residing at Islington against the defendant, who is clerk to a salesman in Newgate-market, to recover the sum of 5*l.* for medicine supplied to and attendance on a female named Harriet George, during the time that the plaintiff was residing with her under the name of George, and passing her off as his wife. The case of the medical gentleman was supported by highly respectable witnesses. The defendant, to prove that he never went by the name of George, called as witnesses two individuals, one of whom (the female, George,) on her cross-examination, admitted the equivocal position in society that she had occupied.

The Sheriff in addressing the jury said that the evidence was very contradictory, and it rested with the jury to determine whose witnesses were most worthy of credit. If the defendant and the woman George had given themselves out to the world to be man and wife, there was no question as to the defendant being liable for all necessaries supplied to George.

The jury found for the plaintiff for the amount claimed.

THE WEATHER.—Seeing, then, that the whole universe is but one connected series of bodies, all obeying the same laws, and each acting in concert with the rest, we feel this conviction—that the laws of climate are as fixed and certain as those of physical astronomy; consequently every change in the weather is the effect of some determinate cause, which, there is very little doubt, may be ascertained with nearly the same precision as the return of a comet, the recurrence of an eclipse, or the occultation of Jupiter's satellites.—*Meteorological Journal.*

THE LANCET.

London, Saturday, March 19, 1842.

It is to be deeply regretted that, through the infirmity and unreclaimed wickedness of mankind, aggressive war should be the surest and shortest path to human glory; whence it happens that Governors-general of India, like Lord Auckland, have been always tempted to seek fame rather by territorial conquests, than by ameliorating the condition, and calling forth the resources of the population of our Indian empire. Of anything done for the advancement of the arts or sciences, or for the improvement of the social and sanatory condition of the presidencies, the English people, the tribunal by which Governors-general are tried, hear and appear to care absolutely nothing; while the marches of an army to distant parts, victories, and the explosion of such a fortress as Ghuznee, reverberate throughout Europe. This is by virtue of the law, that works of destruction make a noise in the world, and attract attention to their causes, while creation goes on silently: that the thunderbolts by which the oak is riven were traced by the ancients to the hand of Jupiter; while the force by which the elements of its gigantic fabric were built up from the earth and air, was given to no God, but nature. Reason alone can correct these errors of the senses and feelings, and compensate for them.

We regret to see the Governor-general of India, in the Report which he had the liberality to have printed, refusing an application from the Calcutta Committee for a small sum of money for sanatory purposes, and neglecting, to this day, we fear, from the same *economical* (?) motives, the improvement of the Indian cities; while the Government squandered, and is squandering, millions, in alienating and injuring the Asiatic population, in perpetrating acts of cruelty, violence, and flagrant injustice. Upon quitting India, the reflection, nevertheless, that he listened to the suggestions of Martin, and encouraged an inquiry with a view to benefit the natives of Calcutta, must afford to Lord Auckland a consolation which the results of his disastrous Affghan policy cannot extinguish. Our notice of the proceedings of the Governors of India and of the colonies where The Lancet circulates, will, we hope, increase their sense of responsibility, bring the opinion of an enlightened class of the English public to bear on the government of those remote parts, and encourage our medical brethren to prosecute their useful labours with additional vigilance. They are labouring for European science; and the medical press of their native land, if not the medical corporations, is always happy to have an opportunity of publishing and applauding their peaceful achievements.

In a former Number we gave some account of the physical structure, the manners, diet, dress, and dwellings of the population of Calcutta; we shall now proceed to notice other points of interest, touched upon either in the Report of the Committee, or in the publication of Mr. Martin; and, first, of the prevalent diseases, and the mortality.

No new light is thrown on the history of cholera in the Reports. Dr. Stewart estimates the mortality of the Hindoos from this disease at 1.26 per cent.; of the Mahomedans, at 0.66 per cent., for the six years ending 1837. It is stated that, with the exception of *blood-letting*, which they "have been latterly obliged to abandon as *deadly*," the practice of Indian surgeons on the stimulating plan, remains very much the same as it was at the commencement of the disease in 1817. "A full dose of calomel with "opium will save life in a large majority of "cases," says Mr. Martin, "if used early. "In the army, and at the native hospital, I "have seen persons in whom nothing seemed "to live but the respiratory apparatus, and "yet, under the unceasing exhibition of am-"monia, always a safe stimulus, they reco-"vered in a proportion that excited my "surprise." He candidly avows, however, in another paragraph, that though cases of

collapse "are saved by the assiduous exhi- "bition of stimuli, yet it is equally true that "the *majority of them die now*, as they did "in our earlier experience." 372 in 803 Europeans attacked with cholera died in the Calcutta General Hospital. In the seven years, 1832-8, 15,204 died of cholera out of about 157,000 Hindoos, and 2911 out of 60,000 Mussulmans, in Calcutta. Of the 18,115 deaths, 8135 occurred in the months of March, April, May; 2831 in June, July, August; 4051 in September, October, November; 1586 in December; 696 in January. The smallest number of deaths from cholera occurs in the month of January, the greatest number (3180) in the month of *April*, the middle of the *hot and dry* season in Bengal, when the temperature rises gradually from 80° to about 90°—95° in the shade. An epidemic is described in 1824 of a disease which attacked the whole population, but occasioned few deaths. It bears some resemblance to *influenza*, but its symptoms do not appear to have been very clearly analysed. The fever was ushered in suddenly, by a slight sense of cold in the back and lower extremities, accompanied by intense headach, flushed face, and watering of the eyes, as in measles. The pulse then became frequent, but neither full nor hard, excepting in the very robust. This state continued with increasing pain of the head, back, and lower extremities for twenty-four hours, when, on the appearance of a general efflorescence, the symptoms abated, leaving, however, a degree of debility, altogether disproportionate to the nature and duration of the previous fever, and a distressing pain of the extremities. Relapses were very common. An epidemic of bronchitis prevailed in 1828: it proved extensively fatal, particularly to infants. The lungs were found congested; the bronchi injected after death. An epidemic gastric remittent fever prevailed in 1833: it began among the natives to the south and east of Calcutta in *June;* and it is said that *more than half* of them were destroyed by the end of October. Early in July it attacked the European inhabitants of Calcutta, and carried off considerable numbers. This epidemic is ascribed by Mr. MARTIN to an irruption of the sea, which, backed by a storm, inundated the low countries along the coast, making a breach over the Sunderbund as far north as Calcutta. The barometer stood for some days lower than it had been for years, at 28.8 inches: the tide rose twelve feet above its ordinary level, destroying embankments and buildings of every kind. The loss of human life and of cattle was enormous. Nearly seven thousand persons perished on Sangor Island. The rains were nearly a month later than usual in setting in, and the ordinary cultivation was arrested by the saturation of the soil with salt. The starving survivors, from these united calamities, crowded about the outer suburbs of Calcutta; and parents were at last reduced to the necessity of supporting their lives by the *sale* of their children, the most emaciated of whom sold at last for *one rupee*. The remittent broke out under these distressing circumstances, and, as has been seen, raged with terrible violence when the soil was drying. The mucous membranes were inflamed and softened; in some cases there were serous effusions in the membranes of the brain. One cured everybody by bloodletting; another cured all his patients with quinine; yet, as sometimes happens in spite of these irresistible remedies and their *successful* administration, immense numbers died. A *choleric fever* was epidemic in 1834; characterised by heat and dryness of skin; soft, frequent pulse, and clammy white tongue; slight diarrhœa. It was an exceedingly mild disease; but it was aggravated into fatal cholera whenever purgatives of a saline or drastic nature were exhibited. Ague is rare among the better classes of society in Calcutta. MODOOSOODUN, who had been educated in the English College, and had practised medicine in Calcutta for twelve years, stated that bilious, remittent, and intermittent fevers (of which *enlargement of the spleen* is the general termination), diarrhœa, dysentery, dyspepsia, rheumatism, and syphilis, are the most prevalent diseases.

The intermittent fever produces splenic enlargement, by giving rise primarily to diarrhœa, which is fatal if not properly treated; the enlargement of the spleen only proving fatal when it is followed by dyspepsia, œdema, or anasarca. One is strongly reminded by these reports of the early descriptions of the diseases of London in the works of SYDENHAM and MORTON. The suppurative inflammation (?) of the liver is common in Calcutta as an idiopathic affection, and as a consequence of fever and dysentery. The liver is often, also, enlarged.

Where epidemic diseases of the characters just described are prevalent, it may be predicated that the absolute mortality is high, and the mean duration of life short. This is shown to be the case in the following tables, prepared by Mr. PRINSEP, who neglected to state distinctly how his results were obtained, or over what years his average extended.

Average rate of mortality in Calcutta, from the census and table of mortality:—

	Number of Inhabitants	Annual Deaths.	Average Mortality per cent.
English	3138	277	3½
Eurasians	4746		
Portuguese and French	3341	417	12½
Mahomedans	59,622	1607	2¾
Hindoos	157,418	9558	6$\frac{1}{12}$

It is added, as some explanation of this enormous difference, that the proportion of infants among the Portuguese and Hindoos is greater than among the Mahomedans and English.

AT page 474 of the present volume of THE LANCET we published a report of the proceedings at an inquest at Brentford on the body of a child who had been attended in its illness, terminating fatally, by a druggist of that town. The notoriety which the circumstances obtained through the medium of the press caused the attention of the Society of Apothecaries to be directed to the illegal practice of the druggist, a Mr. SQUIRE, and proceedings were immediately commenced against him for the penalties which he had incurred in his assumed vocation of a medical practitioner, without possessing a legal qualification. We have since received the following information on the subject, namely, that the evidence laid before the Society of his practice as an apothecary in the case of EDWARD WILLETT and other cases, warranted their instituting of proceedings against Mr. SQUIRE, and he having omitted to plead to the action, a judgment was obtained against him for seven penalties and costs. That he subsequently expressed great regret at having violated the law, and has promised to abstain from medical practice until he is legally qualified, and that the Society, under these circumstances, have felt themselves at liberty to suspend issuing execution for five of the penalties, upon two of the penalties and costs being paid down, reserving the power of enforcing the remaining five penalties as a security against his future practice, it being distinctly intimated to him that in case of his attempting to practise again before he is legally qualified, the remaining penalties will be forthwith enforced. It appeared to the Society that the object in view, namely, to vindicate the law, and check illegal practice, would be better attained by this course than by levying the whole of the penalties at once; the consequence of which might be, that the party would apply for his discharge under the Insolvent Debtors' Act, and thus relieve himself from the consequences of his misconduct.

THE MEDICAL BENEVOLENT SOCIETIES OF LONDON.

To the Editor of THE LANCET.

SIR,—At the monthly meeting of a few friends who form a club for the circulation of medical books, the conversation last night turned upon the annoyance experienced from the solicitations of distressed members of the profession, or of their families. All present had cases in point; and from the various opinions expressed might be gathered the

general feeling on the painful subject of medical mendicancy.

Some treat all such applications as impertinent intrusions; others injudiciously gratify their benevolent feelings; others yield to importunity what they deny to a first application. A few investigate the cases thoroughly, but finding the distress in some feigned, in others wholly beyond their means of relief, they shrink from so difficult a task, and gradually get the habit of shutting their ears and their hearts to all tales of distress.

The rich or generous are apt to give, and the needy or unjust to refuse, indiscriminately, while both are dissatisfied with their own and the other's conduct.

The evil of this state of things being so generally felt, and so loudly complained of, it is the duty and the interest of all who perceive and suffer from it, to inquire diligently, what, if any, means exist amongst members of the profession for mutual or charitable relief.

It will be found that besides the charitable fund of the British Medical Association, which does much in proportion to its limited means and recent formation, two societies have long been established in London for these laudable purposes. These are the "Medical Benevolent Society," and the "Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity;" the former established in 1816 for the relief of decayed or distressed medical men, the other in 1788 for that of their bereaved families; the benefits of each being of course confined to its members.

These societies are, I believe, in a highly efficient state, but surely they are not sufficiently known, or they would be more generally supported.

As mere channels for regular, judicious, and systematic benevolence, they must be invaluable to all who feel it a duty or a privilege to give to their needy brethren, out of their abundance or of their competency. As means of insurance against unexpected but not improbable reverses, they must be highly desirable to many; and the annual subscription, one guinea, to the Medical Benevolent, and two guineas to the Widows, &c., is surely moderate enough for most.

On the whole, it is difficult to conceive any very good reason why every member of our profession should not be found in the lists of these two societies; yet, out of the 1600 medical practitioners of the metropolis, the Society for the Relief of Widows and Orphans numbers less than 350, and the Medical Benevolent less than 150 members. To both every qualified practitioner of good character is eligible. In both the admission of members and the election of officers are by ballot, and the annual lists of directors, &c., prove that in both the franchise is judiciously exercised.

My belief, Sir, that the welfare and respectability of our profession, leading objects of your valuable Journal, may be much promoted by a great extension of these and similar societies, will I am sure be a sufficient apology for this trespass on your attention. I remain, Sir, your obedient servant,

PUBLICUS.

May-fair, March 4, 1842.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

March 8, 1842.

The PRESIDENT in the chair.

On a Variety of False Aneurism. By R. LISTON, Esq., F.R.S., Surgeon to University College Hospital.

THE author's attention has lately been particularly directed to the subject of the communication between large blood-vessels and the cysts of abscesses, in consequence of having lately met with a remarkable case in which the carotid artery opened into a large abscess in the neck. J. A., ætat. 9 years, suffered from severe illness about six years ago, by which he was left in a very reduced state. Two months back he had a violent cough accompanied with fever, and at this time a small swelling was first observed in the neck immediately below the right ear. This swelling increased slowly until within three or four days of his reception at the North London Hospital on the 20th of October, when its progress had become more rapid and irregular: at the date mentioned there was observed a tumour extending from the angle of the jaw on the right side downwards to within an inch of the clavicle backwards, to the posterior edge of the sterno-mastoid muscle, which it raised, and forwards to about midway between the angle of the jaw and the chin: the tumour, further, projected inwards into the mouth between the arches of the palate, and materially impeded both deglutition and respiration. Indistinct fluctuation could be felt in the tumour, and there was slight pulsation in it immediately over the course of the carotid artery; but on grasping the sides of the tumour and examining it from the mouth, no pulsation could be felt. A small puncture was made

into the tumour under the impression that it contained matter, but a gush of arterial blood followed the bistoury, and about four ounces were lost in a few seconds. The puncture was readily closed by hare-lip pins and twisted suture, and the bleeding checked. Mr. Liston resolved on tying the carotid artery next day. No hæmorrhage occurred in the course of the ensuing night, but the tumour was tense, and had been kept covered with a cold lotion. On proceeding to the operation, an incision about an inch and a half in length was made transversely over the sternal end of the clavicle, and another upwards, and at right angles to the first over and in the line of the trachea, by which an angular flap was formed and turned upwards and outwards. The sternal attachment of the sterno-mastoideus being exposed was cut through; the sterno-hyoideus and sterno-thyroideus were next exposed, after some dissection, and divided; at length the carotid was exposed a little above its origin from the innominata and tied. The whole difficulty of the operation arose from the necessary smallness of the external incision; the tumour projected so low down into the neck that it was impossible to procure space by extending the incision upwards, and the artery, which was at a great depth from the surface, had to be sought for at the bottom of a small hole. The flap was laid down and retained by some isinglass plaster. The boy complained very little after the operation, the swelling became smaller and firmer; and the movements of the jaw, which before were much restricted, were now more free and less painful; the pupil of the right eye, too, which had been contracted, and only partially sensible to light, was now restored to its proper functions. The patient slept soundly through the night following the operation. The pins and twisted sutures were removed on the 25th, and strips of isinglass plaster applied instead. On the 28th some grumous blood escaped from the opening in the tumour; the patient was cheerful and happy. Things went on prosperously, the tumour shrinking in size, till the afternoon of the 3rd of November, when a sudden gush of arterial blood took place from the wound in the forepart of the neck, the ligature being firm. The hæmorrhage was arrested for the moment by plugging the wound with lint, but a considerable quantity of blood was lost. Hæmorrhage returned six times after this, and the patient finally sank in a state of collapse forty-eight hours after the first occurrence of the bleeding. On examination, the ligature was found to have been placed close to the origin of the carotid from the innominata; it was not completely separated, a small portion of the external side of the artery still remaining entire. There had been no attempt at the formation of a clot, or if any had formed it must have been expelled with the blood. The appearance of the tumour both externally and internally are most minutely described by the author, as are also the relation of the vessels to the cyst, and the condition of the opening of communication between the carotid artery and the latter. It would be impossible to do justice to these details in the space of a short abstract: suffice it to say, that the author feels himself warranted in deducing, from the examination of the parts, the conclusion, that the disease was originally a chronic abscess of a scrofulous character, and the opening into the artery was consequent upon ulceration from without. The preparation of the part, together with two drawings made from them in a recent state, were exhibited to the meeting. The author relates, in confirmation of his view, the details of three other cases derived from the practice of himself and others, in which large arteries in the neighbourhood of abscesses were opened by ulceration.

The PRESIDENT remarked, that there was one very curious circumstance which he had noticed in cases of false aneurism, and which he had difficulty in accounting for. This consisted in the great length of time which the blood in the cyst of the false aneurism, however large it might be, retained its vitality. He had seen a case of false aneurism in St. Thomas's Hospital affecting the abdominal aorta, and in which three or four pounds of blood must have been effused for several weeks, yet in this instance the effused blood had no fœtor, and had still preserved its vitality at the examination of the body.

Mr. STAFFORD directed the attention of Mr. Perry to a case of varicose aneurism which occurred in St. Marylebone Infirmary, but

Mr. PERRY remarked, that the case alluded to had been already published in the society's Transactions, and need not be again detailed at the present time.

Dr. J. JOHNSON was highly gratified at hearing the authentic detail of the case which was before the society, because it served to dispel a host of idle rumours which had pervaded the town, and which appeared from the case as now stated to have had no foundation in fact. Even the statement which had been made that a gentleman had informed Mr. Liston that he had detected a bruit de soufflet in the tumour previous to its having been opened, now appeared to be untrue. He (Dr. Johnson), however, saw one difficulty in the case, which for information he should put in the form of a question to Mr. Liston. If the sac were that of an abscess, and erosion had taken place in the coats of the carotid, thereby establishing a communication between the artery and the abscess, how was the absence of pus in the evacuated fluid to be explained?

Mr. LISTON replied, that it was probable that the cyst had been filled with blood for several days before it had been punctured, and

in the gush which followed the incision the pus would not be distinguished from its intimate mixture with the arterial blood.

Mr. Bransby Cooper said, that even if a bruit de soufflet had been known to be present by the surgeon, that of itself would not have been sufficient to determine the presence of an aneurism, for it was well known that pressure over an artery would usually produce the bruit in question. The history of the case altogether was not that of aneurism. The early age of the patient, nine years,—the fact of his being of a strumous habit of body,—that the swelling had followed an attack of scarlet fever, all were presumptive evidence of the swelling being an abscess; and what surgeon he would inquire, when a fluctuating tumour was presented to him with such a history, and pressing on important parts, would have hesitated to have let out the fluid? He thought the society, and the profession in general, owed a debt of gratitude to Mr. Liston for bringing this case forward. He (Mr. Cooper) regretted that the unsuccessful cases occurring in our hospitals were not more frequently published to the world: the journals vaunted abroad the successful cases, but the unsuccessful ones were allowed to "moulder in oblivion."

Dr. Johnson did not mean to infer that the presence of a bruit de soufflet in Mr. Liston's case would have been sufficient to determine the presence of aneurism, but there had been such a bruit over the town respecting this case, that he wished to arrive at the exact truth respecting it.

Mr. Dalrymple, in answer to the question of Dr. Johnson respecting the absence of pus in the fluid evacuated from the tumour in this case, remarked, that when matter was mixed intimately with arterial blood, as it would have been in this instance, it could not be detected with the naked eye, although it might be seen by the aid of the microscope. Of one of the cases detailed in Mr. Liston's paper, he (Mr. Dalrymple) had been a partial witness. In this case the patient was a medical student, and the tumour opened was a genuine abscess, and discharged matter for fourteen days before any blood was observed to come away: the sac did not contract, and when hæmorrhage did take place, no one could have supposed that there had been any matter there, and this was the case up to the time of tying the artery. It would certainly have been more satisfactory if it had been possible, in the case under discussion, to have seen the matter.

Mr. Partridge had seen, or known of, three cases of aneurism in young persons. In one case the aneurism was of the true kind, and affected the entire calibre of the three coats of the artery, which was the commencement of the internal carotid: the patient was eight or nine years of age, and had been under the care of Mr. Hodgson. In the second case, the patient was a boy, and had been under the care of a surgeon in Kent, who had communicated the particulars to Mr. Hodgson; the aneurism was of the true kind, and affected the brachial artery. In the third case, the tumour was situated in the carotid of the right side of the neck; there was a bruit de soufflet easily to be distinguished in it, and it could be much reduced by the application of pressure. The patient was nine years of age, and he (Mr. Partridge) believed was alive at the present time.

Mr. Bransby Cooper remarked, that these cases were not published in Mr. Hodgson's book on the Arteries. The earliest case recorded in that publication occurred in a patient seventeen years of age; the earliest he believed recorded was one in a patient thirteen years of age.

Mr. Partridge replied, that the cases he had mentioned occurred subsequently to the publication of Mr. Hodgson's book; they were the only three cases at so early an age which had come to the knowledge of that distinguished surgeon.

Mr. Adams thought that the employment of a very simple instrument—the grooved needle—in Mr. Liston's case would have prevent the occurrence of any mischievous effects.

Mr. Solly said, after all he thought the case was to be regarded as a warning to other surgeons. He thought in these cases that the aid of the stethoscope should be called in, and then if a bruit de soufflet were present, should we cut into the tumour or tie the artery?

Mr. Liston: We should make a puncture, to determine whether blood were present in the tumour, and then be in a condition of preparation to tie the artery if necessary.

Mr. Solly: Yes, we should make a puncture in the tumour, but not with a knife, but a grooved needle. In the reports of the case which had been published in the journals, not one of them had stated that the artery passed underneath the tumour, but that a vessel was over it; a circumstance which made a very serious difference in the history of the case.

Dr. Truman inquired, whether it were possible that an abscess could keep up a communication with an artery, and the patient continue to live. He thought that such a communication could not long exist, or the pus would get into the circulation and have destroyed the patient. He thought it much more likely that the communication with the artery did not take place until the moment the tumour was opened.

Mr. B. Cooper replied, that cases in which vessels communicated with abscess were of constant occurrence without any bad results ensuing.

Mr. DALRYMPLE considered that it was of no moment whether a tumour, such as the one under discussion, were opened by a grooved needle or narrow-pointed bistoury, the result, indeed, would be the same. In fact, there had been no objection urged against the mode in which the tumour had been opened, and nothing indeed had been said respecting it. If a free incision had been made into the tumour, that would have been altogether a different matter.

Dr. JOHNSON observed, that when a communication existed between a blood-vessel and an abscess the pus would not get into the circulation, but the blood would enter the sac of the abscess: even if matter did get into the circulation, it did not follow that it should prove fatal. How common was it for us to find large clots of matter in arteries, and these had not proved fatal.

Dr. WILLIAMS would offer no opinion on the propriety or non-propriety of the operation of opening the tumour in Mr. Liston's case; he rose for the purpose of remarking, that pulsation or a bruit would not alone be a sufficient indication of the presence of an aneurism. He had lately inspected a body in which during life a very loud noise was heard in the region of the innominata, and yet no aneurism was present; on the contrary, there was contraction of the artery from calcareous deposit. In a case of disease of the heart in which the aortic foramen was contracted to a mere slit, there had been no bruit whatever in the region of the heart. Pulsation was by no means to be relied on alone, particularly in the cases of children. He thought in Mr. Liston's case everything tended to show that the operation had not been hastily performed.

Dr. BUDD considered that the case under discussion was very analogous to those cases in which a cavity in the lung communicates with a vessel, and in which the patients die suddenly from hæmorrhage. He related the case of a patient who was admitted under his care into King's College Hospital with phthisis, by no means in an advanced stage; he had no idea of immediate death. The man, however, suddenly died without any obvious cause. On examining the body the mystery was solved; a small cavity was found filled with blood; the lung was entirely gorged with blood. The cavity had communicated with a large branch of the pulmonary artery.

Mr. SOLLY mentioned a case of genuine aneurism of the femoral artery in which there was no sound. The tumour, however, could be reduced by pressure on the vessel: the bruit was by no means a sufficient test of the presence of aneurism alone, but deserved to be taken into consideration with the other signs and symptoms of the disease.

Some discussion took place in the course of the evening on the physiological reasons why the pupil of the eye "on the affected side" became active immediately after the application of the ligature, whereas before it was inactive. Unfortunately, however, for the ingenuity displayed in the argument, it went for nothing, inasmuch as the affected pupil was on the opposite side to that on which the tumour was situated.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 12, 1842.

Dr. GOLDING BIRD, President.

CASE OF FUNGUS HÆMATODES OF THE LEG IN A YOUNG PATIENT.—CAUSE OF THE INFREQUENCY OF PRESENTATION OF THE FUNIS.

MR. B. W. HOLT related the following case:—Miss M., a young girl, ætat. 14, of strumous habit, but who had never suffered from previous disease, was attacked three months since with slight pain in the upper and outer side of the left knee-joint. This was followed in the course of a few days by a small tumour, somewhat resembling the kernel of a nut. Her mother did not pay any attention to it, being under the impression that it proceeded from growing pains. However, at the expiration of a fortnight, the tumour continuing to increase, accompanied with considerable pain, she was induced to seek the advice of Mr. White, who, upon seeing her, there being some inflammation at the time, desired that twelve leeches should be immediately applied, and the limb kept exceedingly quiet; at the same time he ordered her the medicines he thought requisite. The leeches not having given that relief it was supposed they would do, Mr. White, when he next saw her, desired that a blister might be applied, and kept continually open by the ceratum sabinæ: at the same time that attention was paid to her health which the symptoms required. This treatment having been pursued for more than a month with little or no benefit, it was discontinued, and fomentations and poultices substituted, with the view of promoting suppuration. As Mr. White at this time suffered from ill health, he requested Mr. Holt to take charge of the case, only occasionally himself seeing it. Shortly after Mr. Holt commenced his attendance the patient was attacked with violent purging, which, however, easily yielded to the medicines prescribed; but the tumour, in spite of all his efforts, continued to increase in regular form, but it did not put on any peculiar characters, nor was it attended with considerable pain. It was an even, white, rather hard, and solid tumour. In a short time afterwards, however, fluctuation was distinctly discernible, and Mr. Holt, therefore, proposed the introduction of a grooved needle, that some conclusion might be arrived at as to what were its contents, as there was an absence of all the usual signs of the formation of matter having

taken place. Upon withdrawing the instrument about half a wine-glassful of bloody sanious discharge, which did not coagulate, but had very much the feeling of synovia, escaped. A small piece of strapping was placed over the wound, which almost immediately healed. About a week after this her appetite, which had previously been good, began to fail. She was evidently getting much thinner, the diseased mass beginning to tell upon her constitution: her cheek was flushed, putting on the appearance of the commencement of hectic. After having tried almost everything, Mr. Holt was induced to order her the iodide of potassium, commencing with four grains for a dose, in an ounce and a half of camphor mixture, three times a-day. For three days after taking this medicine the pain entirely ceased, and her appetite became better; but at the expiration of that time the tumour gradually resumed its original gnawing pain, so as entirely to preclude the possibility of her getting rest. To procure this, it was rendered necessary that she should take half a grain of morphia every night. Up to this time the tumour had not put on any appearances of the disease it afterwards proved to be, but in one week an evident and rapid change took place, the skin became of a dark chocolate colour, the tumour assumed a lobulated feel, with a sense of hollowness given to the touch; congested veins ran over its surface; the pain now became intense, both in the thigh and leg, and the weight sensibly felt, so as to render it impossible, without assistance, to turn or even move in her bed; in fact, there were all the symptoms of osteo-sarcoma. As her friends wished for some further opinion, a consultation was held with Sir B. Brodie, at which Mr. White was unable to attend. It was the opinion of Sir Benjamin that the limb should be removed, to save the patient the suffering she would undergo when the diseased mass should ulcerate; but at the same time he did not hold out the slightest hope of ultimate good being done. This opinion was made known to Mr. White, who, under the circumstances, refused to allow the operation to take place, unless the girl herself should request it, as he had never seen a single case where the disease did not return. A fortnight after the consultation, the tumour having attained an immense size, a small ulcerated spot was noticed on the under part, from which a slight weeping had taken place; and on the following day about a pint of discharge, of the same character as before, made its escape. This opening gradually ulcerated away, large sloughs from time to time coming away in the poultice, until a large wound was produced; fungous granulations began to spring up, but were very much flattened and compressed, from the size and weight of the tumour; this gradually went on, the pain and suffering being extreme; and she died the 21st of last month, from perfect exhaustion, produced by the parasitical growth feeding upon her. Upon examining the limb after death, the disease was found to extend very nearly to the hip-joint, so that had an amputation been performed it would have been perfectly useless; the external condyle was, in a great measure, ulcerated away, and a rather large bony deposit on the upper and outer part of the femur had formed. The cartilages were in a high state of inflammation, which he (Mr. Holt) has no doubt, when examined by the microscope, will be found organised; a circumstance to which credence was not given in the present day, but which probably, at some future time, he might have the honour to bring before the notice of the society. There was no evidence of the presence of malignant disease in any other part of the system.

Dr. Bird remarked, that it was singular that just above the seat of ulceration there was a large bony deposit, loosely connected with the periosteum.

Mr. Fisher exhibited a bullet slightly coated with phosphate of lime, which he had removed from the neck of a man who was in the British Legion in Spain. The ball had passed through the angle of the lower jaw, through the salivary glands, to the neck. He had lost all sensation in the lower jaw, but his taste was perfect. When he put his tongue out it was curled upwards. He had suffered no other inconvenience from the presence of the bullet.

Mr. Streeter afterwards entered at some length into the anatomy and physiology of the funis, chiefly with reference to the reason of the infrequency of funis presentations, and concluded with some practical remarks on the treatment of such cases. In a case of presentation of the funis which lately occurred in his practice, he was surprised to find that when he attempted to pull down the cord it immediately coiled and retracted. He was led to think on the causes of this phenomenon, and to couple these with the reasons why the cord did not more frequently descend before the head. In considering the anatomy of the cord, and its great difference of length in the human animal to that in all others, he came to the conclusion that it coiled up in the uterus, from the nature of its circulation; that by this coiling it was carried out of harm's-way, or that it looped the head; or, if long, passed over the whole length of the body, and thus explained the knots which were said to be occasionally found in the cord. Sometimes the coiling was to a morbid extent, and left the impression of the cord upon the limbs. Mr. Streeter then referred to some interesting particulars respecting the length of the cord. He quoted some statistics from Dr. Churchill's work, to show that out of five hundred cases the shortest cord was twelve inches, the longest fifty-four inches;

that the most frequent length was eighteen inches; the next most frequent twenty-four; and the next twenty inches. He referred to some cases of Mr. Stone, in which the cord was not more than six inches long, and in which the abdomen had been torn from it. He alluded to a case of a cord which he had exhibited to the society, which was forty-five inches long. With regard to the earliest period at which the cord was found to be coiled round the neck of the fœtus, he exhibited a preparation belonging to Mr. Hughes, in which the fœtus was about the fourth month, and another from the museum of Dr. Chowne, in which the fœtus was probably about the eleventh week: in both these cases the cord was coiled round the neck. With respect to the treatment of prolapsus of the funis, he referred to the valuable atlas of Moreau, edited by himself, in which he had given the statistics of thirty-seven thousand four hundred and seventy-four cases; and of these the funis presented in one hundred and ninety-nine cases, or about one in two hundred. There were two kinds of funis presentation—the one consisted of those cases in which the funis got entangled below or beside the head, and had not passed up; and the other consisted of those instances in which the cord had been above the head, but was brought down by the gush of water. With regard to the various means which had been adopted for the reduction of the prolapsus, much would depend on the period of the labour at which the prolapsus took place. Where the cord was not impacted, the support of the finger, or of sponge or cotton introduced into the vagina, might be of service; but these were of no use when the cord *was* impacted. He objected to version, as it had proved fatal in the ratio of one in fifteen to the mother; and it was known that every third child died in cases where version was performed for all sorts of purposes. The forceps had been occasionally employed with success. Converging the funis into the sacro-ischiatic notch, might in some cases, where there was room, succeed in preserving the life of the child. Still he objected altogether to instruments, and the cord was often so long as to render it dangerous to attempt to return it. Twisting the cord in various ways might perhaps reduce the prolapsus in the manner in which a hernia was reduced. But cases must be treated according to circumstances: Sir R. Croft, in two cases, had succeeded in hooking the funis over the limbs of the infant.

Dr. Reid had never met with a statement respecting the twisting of the cord in prolapsus similar to that mentioned by Mr. Streeter. He had, however, noticed in cases in which the child was hastily born, that the cord was occasionally twisted in that manner. He thought in version that he had felt the same state of the cord in the womb, but it was generally flaccid, even when the child was alive. The cause of the twisting of the vessels in the cord had been attempted to be explained in various ways; one of the most prevalent opinions was, that the arteries being longer than the veins, it was necessary that they should be coiled, in order to be contained in the same sheath.

Mr. Streeter remarked, that the coiling he mentioned did not cease when the pulsation in the cord ceased, some elasticity being still left in the cord. When the vessels of the cord were first formed they were of uniform length; there must be some specific cause, then, for the coiling of the arteries.

Dr. Chowne said, that there were some circumstances which rendered Mr. Streeter's view of the cause of the infrequent prolapsus of the cord probable. One of these was the fact, that the cord seldom prolapsed until after the death of the child: generally when the funis presented the child was dead. He showed objections to the various modes of treatment which had been recommended for prolapsed cord, and remarked that none of them seemed to answer the purpose in practice.

Mr. Dunn had met with seven cases of presentation of the funis: in all, the children were born dead. He had met with a case of knot in the cord.

UNIVERSITY COLLEGE MEDICAL SOCIETY.

Friday, March 11, 1842.

Mr. Marshall, President.

COLLOID CANCER.

Mr. M'Dougall read a paper on colloid cancer. After enumerating the various names given to this disease, and the classifications to which it had been referred, the author proceeded to its anatomical characters, viz., that it consists of masses of cells, filled with an elastic, gelatinous substance, of various shades of colour, very tenacious, and not easily removed by pressure. He then adduced the following case:—A patient, ætat. 42, was admitted into the Colonial Hospital, Hobart Town (whilst he, Mr. M'Dougall, was house-surgeon to that institution), suffering from an ulcer on the leg. He was of intemperate habits, impaired constitution, and of a sallow complexion. After some months' residence in the hospital the ulcer improved, but the patient's health declined: he became very debilitated, and suffered from frequent desire of making water, and ultimately perished from fever. On a post-mortem examination, a mass of diseased structure occupied the position of the omentum, whose external characters, were a nodulated surface, of various colours, in which yellow predominated, and superficial vascularity. At the lower part of the peritoneal

cavity was an accumulation of uncoagulable fluid. Within the bladder a fungous growth, similar to that in the omentum; the parietes of the bladder much thickened. A sectional view of the omental diseased structure exhibited throughout a number of cells, circumscribed by fibrous septa, and containing the colloid matter, which, on microscopic examination, was found to consist of globules, containing smaller ones, in which were nuclei; amongst the globules was found also small acicular crystals. The author believed this morbid growth to have originated underneath the peritoneum, though this membrane could not be traced over the surface of the mass. The author stated the opinions of pathologists to vary as to the primary seat, &c. of this disease; Dr. Carswell thinking that it may be deposited on the surface of serous membranes; Professor Walshe, that this is very rare; Andral, that it is a disease of secretion; whilst Cruveilhier considers it to consist of dilated veins. He considered the presence of blood-vessels in the diseased structure as opposed to Dr. Carswell's view of its originating as a deposit on serous surfaces; for how in such cases is the connection established between the vessels of the normal and abnormal tissues, if the deposit originated in the subserous cellular tissue? the connection was easily accounted for. He regretted that the subject of the disease in question had not been injected, as most observers had hitherto failed in discovering blood-vessels in this form of morbid growth. He believed the cells might arise in the following manner: in a fluid supplied from the blood cells arise, and enlarge by accumulation of young cells within, in whose interior others are again formed; soon the original cell bursts, splits into fibres, allowing the secondary cells to escape, and constituting the septa. Of the causes of this deposit various views are entertained among pathologists; it probably depends on causes inherent in the constitution, as it is found almost universally to recur in some part or the other when removed from any part by operation. It has been found in the rectum, stomach, mesentery, uterus, cæcum, testicle, and bladder. Its symptoms, unless in superficial parts, are obscure, as is seen in this case, in which its existence, though in important organs, was not discovered until after death. As to treatment, it should be by constitutional means—by such remedies as should tend to improve the general health, and that a change of these was desirable. The early stages afforded the only chance of doing much good.

Mr. Morton wished to know if this disease had been removed by operation; if so, with what result.

Dr. Lankester thought that if the existence of crystals had been satisfactorily made out, it was an interesting circumstance, as demonstrating in a low state of vital action the co-operation of chemical and vital phenomena. No satisfactory treatment was likely to be discovered until the development of these growths was better known, and this could only result from a better acquaintance with the development of normal tissues. He drew some interesting comparisons between the fungous growths of animals and vegetables.

Mr. M'Dougall quoted Professor Walshe on a case of colloid cancer removed by operation, and succeeded by an encephaloid tumour. His impression was, that crystals did exist in the morbid growth of which he had been giving an account.

Dr. M'Grigor considered the knife the only remedy for such morbid growths, and that in the present instance its aid could not have been had except by such an operation as the Cæsarean section.

Dr. Quain thought the present case an instance of the extent to which disease might proceed without characteristic symptoms during life. Such cases point out the necessity of accurate and careful examination, and of treating with indulgence the practices of others in such circumstances. The origin of such growths was to be traced to the earlier processes of sanguification. The existence of cancerous matter in the blood, as described by Dr. Carswell, proved that these growths were not merely the effect of local action of the blood-vessels. He alluded to some recent views promulgated by Dr. Campbell, on the origin of another heterologous formation, tubercle, which this gentleman considered due to a diminished calibre of the vessels arresting this matter.

Mr. Hardwick thought salivation likely to be beneficial in such cases, and recited a curious case of very extensive cancerous disease discovered after death, but which during life had evinced no symptoms.

Mr. Fenhoulet stated, that crystals were frequently found in preparations preserved in spirit: he thought they consisted of the salts of serum, whose water had been abstracted by the alcohol.

Mr. Matthew and Dr. Quain mentioned cases of cancerous diseases in which mercury had been administered to a considerable extent, not with a good, but rather with a very bad effect.

Mr. Marshall believed that colloid cancer generally affected parts out of the reach of operations for removal; statistic accounts he considered not worthy of dependance upon, as to the result of the removal of cancerous growths. The cases were not usually watched long enough to know the true result of operations, and he adduced cases to prove this statement. He corroborated Mr. Fenhoulet's statement, as to the existence of crystals in preparations preserved in spirit, and considered Mr. F.'s explanation of the fact correct.

ROYAL COLLEGE OF SURGEONS.

THE course of lectures on anatomy and surgery were commenced on Thursday, the 3rd inst., by Mr. B. Cooper. In the first lecture, owing to the novelty of his position, he was somewhat nervous, and did not explain his views so clearly as he was anxious to do. On the second occasion of his lecturing, however, he was "quite at home," and attempted to show that fracture of the neck of the femur within the capsule never *could* occur; that, in fact, nature never intended that it should. He entered at considerable length into the arguments which had been adduced on both sides of this contested point, and denied that a case of osseous union of the neck of the thigh-bone within the capsule had *ever* occurred.

LAST REPORT FROM

THE NATIONAL VACCINE INSTITUTION.

(Ordered, by the House of Commons, to be printed, 8th March, 1842.)

TO THE RIGHT HON. SECRETARY OF STATE FOR THE HOME DEPARTMENT.

SIR,—We feel a sincere satisfaction in being able to assure you that we have had abundant evidence, in the course of the last year, of the increasing confidence of the country in the protective power of vaccination; though this satisfaction is somewhat diminished by the frequent avowal of our correspondents of their inability to maintain a supply of genuine authentic lymph without the aid of that afforded by this national establishment.

Among other facts which prove the importance attached to the existence of this board, we may mention, that small-pox having broken out in the Orkney Islands, immediate recourse was had to the board, and a large quantity of lymph sent thither, which appears to have arrested the progress of this horrible malady, and probably to have placed the inhabitants of those distant parts of her Majesty's dominions beyond the fear of its recurrence.

We have vaccinated, at the several stations within and in the immediate neighbourhood of the metropolis, 15,361 subjects; and have sent out to our correspondents and to the colonies, at the instance of Government, 152,668 charges of vaccine lymph.

We have, &c.

(Signed) HENRY HALFORD.
G. S. GUTHRIE.
EDWARD J. SEYMOUR, M.D.
CLEMENT HUE, M.D., Registr.

National Vaccine Establishment,
March, 1842.

UNIVERSITY OF LONDON.

A REDUCTION in the amount of salary to the officers in this institution having recently been determined on, Dr. Roget has sent in his resignation, conceiving that the *laborious* duties of his department would not be adequately remunerated at £100 a-year. Some amusing correspondence has occurred on the subject of the reductions of salaries, which will shortly be laid before the public.

HOUSE OF COMMONS, March 15.—Mr. Alderman Copeland inquired whether the Government had received a report of the special commission appointed to inquire into the operation and working of the Anatomy Act; and, if so, whether a copy would be laid on the table?—Sir J. Graham replied, that the report had not yet been received; and that when it was received it would be a matter of subsequent consideration whether a copy would be laid on the table.—*Times.*

ROYAL COLLEGE OF SURGEONS IN LONDON.

LIST of gentlemen admitted members on Friday, March 11, 1842:—James Tiptaft Keal; Parkinson Oates; Edward Jones; Richard Slaughter Carter; John Hardie Gray; Thomas Ager; Frederick Albert Tipple; Cavendish Wall; Daniel Stone; Nicholas John Watson; John Thomas Jackson.

TO CORRESPONDENTS.

Mr. E. Brown.—A person who is *now* practising medicine illegally, will not have any claim under a change in the law to be received into the ranks of the profession, even if he have been twenty years acting as an apothecary. He had better at once offer to submit to the examination at the hall, or be prepared for such new examination as the law may require him to undergo.

If *A Constant Reader* (Derby) desires his allegation, that the patient has not been cured, to be published, he must be so good as to forward a letter, with his name and address, in authentication of the statement.

Verax.—"A Manual of Auscultation:" by James Birch Sharpe. THE LANCET for the period mentioned by our correspondent amounts to 1*l.* 18*s.* 4*d.*

A REQUEST was made last week at the office of this Journal, that there should be inserted in that "valuable" publication, a certain "solemn declaration of a sad circumstance", which the writer had offered to "swear some time since at the Lord Mayor's office, only that the clerk said it was a cir-

cumstance that could not be entertained there." Considering that neither was the matter one which could be "entertained" with propriety in THE LANCET, a notice on the subject was inserted at page 839, declining the communication, and intimating that the burden which was upon the writer's conscience could, under a proper feeling, be suitably made only at the private devotions of the self-accused. Indeed, the writer himself stated that other persons had already intimated to him that "it would be better to let the matter rest." The writer stated that in the month of June, 1804, he had, when eighteen years of age, given "a medical opinion at a coroner's inquest" to the effect that John Kingsley, a suicide in Chelmsford gaol (where he was confined on a charge of "petty theft") was of sound mind; whereupon (or if not *propter hoc*, at any rate *post hoc*) his body was buried in a cross-road. The writer now declares himself to have been at the time "an ignorant medical youth," who has by a "long silence" on the subject committed "a fault," and he desired, by this public confession, "to enable the family to have the remains deposited in *consecrated* ground." Without offering a superfluous justification of the terms under which this Journal declined to make itself the medium of such a confession, we insert here a copy of the letter which the writer has since sent to the Lancet office,—a sample of the criticisms which occasionally follow rejected communications. The "declaration" was subscribed with no address, but a memorandum, marked "private," was indorsed, naming a place of abode, a mile or two distant from that which is prefixed to the following letter:

"26, Suffolk-street, Pall-mall East.

"Mr. Charles Jones, M.R.C.S.L., requests the Editor of THE LANCET to return to him to the above address his letters. (&c. &c.)

"Mr. J. has nothing to say of the paragraph in the Journal of this day, March 12, beyond that it and the writer has his, Mr. Jones's, abhorrence. Mr. J. has nothing to confess in his closet, with regard to that evidence; and the Bishop of London agrees in opinion with Mr. J.—With that opinion Mr. J. loathes the writer of the paragraph in THE LANCET of this day. The Editor of THE LANCET can withhold the papers if he pleases, but that will not prevent Mr. Jones publishing them, or a letter addressed, &c. [Here follows a piece of personal impertinence which it is unnecessary to print.] Till these are obtained, Mr. J. will only loathe and detest the writer as God allows man to hate his neighbour for his unkindness. Mr. J. did all error in ignorance; and a large party in the county of Essex, and all who know Mr. J. will say, he has through life been remarkable for kindness and benevolence to the poor. It is doubtful if the Editor has not libelled Mr. J.; if so, he will not escape wholesome punishment, that which the law gives to base man.

"Mr. J. has gone into a more lengthened expression of his disgust than he intended, and ever said he would. Mr. J. is not afraid of offending the Lord Mayor or his clerk.

"12th March, 1842."

A likely gentleman this to be a penitent! The "contrite heart and broken spirit," David pointedly intimates (and we recommended the text last week), should find its confessional in the closet, not in highways. But it is singular to what trials some persons will submit for the sake of notoriety.

T. H. sends us a reply to "H. B." on the midwifery question. *T. H.* will not complain of its non-insertion when he knows that we have already declined a long reply of "H. B.," and many more, to former correspondents on the same subject. "H. B." already grumbles enough at our reasonable motives (expressed last week) for ending the controversy with some other letter than his own. But *T. H.* and twenty others might as fairly grumble, were it not rather "beyond the mark" for an anonymous writer to complain of being personally unfairly treated by the rejection of a superfluous piece of criticism (and why superfluous we have fully shown in the fact that every reader may criticise the general remarks for himself), it might be vexing to be subjected to such a letter as the following, which, since it is brief, and may satisfy "H. B." (now adding a name) we insert, and so close the debate, which must stop *somewhere*:—"*To the Editor*,—Sir, I feel rather unfairly treated in the suppression of my letter. Of course, Sir, I fully admit that the editor of a journal should be an *intellectual despot*, and that he should possess the right to close the door whenever he pleases. On the whole it is proper this should be so. I did wish to be heard, in order to enter my protest (no great thing that, you will say) against the very arrogant assertions made by those writers against whom my letter was directed,—the natural incapability for the office of midwife. To such assertions as these:—'few women possess nerve and presence of mind'—'I believe a well-educated man is the only person capable of superintending the difficulty'—'the women of England are, happily for her sons, wholly deficient in *moral* and *physical organisation* necessary for performing the duties of the office of midwife.' To such assertions as these I did hope to be permitted to reply. *Truth* could not have suffered. But I will not take any more of your time, but subscribe myself at once, yours, stifled, &c., H. BROWN.—Mile-end, 11th March."

Mr. Semple's important contributions shall be published immediately.

Mr. Bearpark inquires, in which of the Dublin journals can he find the details of Dr. Osborne's propositions on stomach affections.